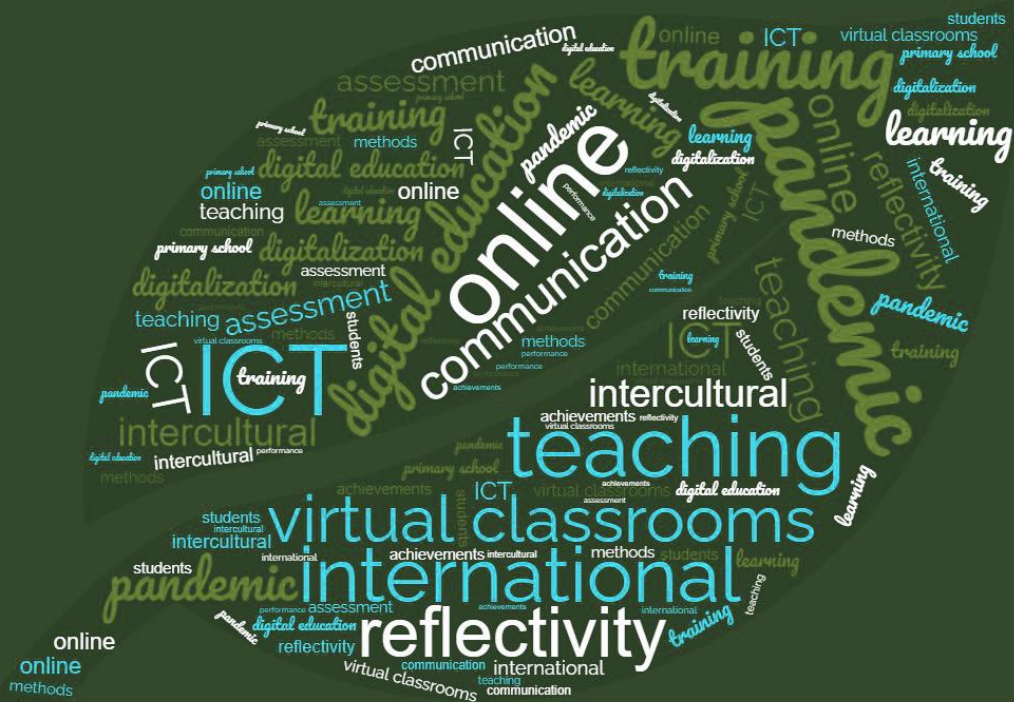


BEST PRACTICES OF LEARNING, TEACHING AND ASSESSMENT IN VIRTUAL CLASSROOMS

Mariana Crașovan

Editor / Coordinator



PRESA UNIVERSITARĂ CLUJEANĂ

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FOREWORD

MARIANA CRASOVAN

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The Covid-19 pandemic, which has engulfed the entire world, caught all educational systems off guard. They looked for solutions to continue education, even as most educational institutions were closed. What brought as a positive element, if we can say so, the COVID-19 pandemic was the rapid adaptation of educational systems to an unprecedented situation in recent human history. The teaching staff had to participate in training courses, either learn alone (self-directed) or learn together with colleagues, in order to be able to continue the education beyond the confines of direct in-person meetings within school premises.

The utilization of diverse communication methods, ranging from social networks to virtual meetings facilitated by the Internet and computers, as well as hybrid approaches, constituted the solutions devised at that time — some proving more efficacious than others.

The crisis situation has wielded such a profound impact on individuals' lives that a considerable number of us are now referencing life before and after the COVID-19 pandemic. The ramifications it holds for people's lives at large, as well as its effects on education, encompassing students, teachers, parents, and the communities they belong to, will become increasingly evident over time.

Technology is part of people's lives and implicitly also of education. If at the beginning the teachers were quite reluctant to use technology, during the pandemic, many of them appreciated its effectiveness and continue to support it.

In the specialized literature, there are studies that analyze the impact of the use of new technologies, their role in facilitating learning, especially in the case of the generations called digital natives, respectively those who are born with devices in hand and use them frequently.

In the essay “Remarks on progress in educational technology”, Spector (2020) begins by addressing the question *What has been learned from educational research and*

learning theory in the last 100 years? The two most important ideas that emerge from the essay are related to the role of teachers, which remains that of helping people to learn, as stated by Robert Gagné (1985) and the emphasis must fall on learning and not on the development of technologies as a goal in self.

New technologies must be seen as tools that can facilitate learning, can make it more interesting, more attractive, but it is clear that learning is an individual act, which requires effort, concentration, involvement, something that no one can do instead of the learner.

The teaching staff should possess both psycho-pedagogical and technological pedagogical expertise. The latter encompasses the skill of seamlessly integrating new technologies into lessons to enhance the learning experience. The utilization of these technologies should not be an isolated objective; rather, they should be regarded as beneficial instruments seamlessly woven into the teaching process. The primary objective should be the facilitation of learning.

The current volume includes seven papers developed by teachers from pre-university education and which present, through the filter of their own experience and professional practice, examples of online platforms, tools, virtual classroom, that can be used in class, in the teaching-learning-evaluation process.

References

- Gagné, R. M. (1985). *The conditions of learning and theory of instruction* (4th ed.). New York: Holt, Rinehart & Winston.
- Spector, M.J. (2020). Remarks on progress in educational technology, in *Education Technology Research Development*, 68:833–836, <https://doi.org/10.1007/s11423-020-09736-x>

QUALITATIVE EDUCATIONAL ASPECTS OF THE VIRTUAL CLASSROOM

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ABSTRACT: Rapid technological progress, strong digitization in all fields, events, diverse social contexts provide the premises for the use of virtual classes in a quality, safe educational environment of asynchronous learning, synchronous at its own pace, adapted to the needs of students. The pandemic context has revealed the need to prepare quality materials, presented in an appealing manner, included in the virtual classroom, to facilitate learning, consolidation, evaluation, including virtual libraries, databases, which ensure navigating the Curriculum, as well as universality, the possibility of efficient communication efficient, timely collaboration, personal and social development for all human resources.

Introduction

Contemporary learning is becoming increasingly personalized, very close to education 3.0, intergenerational, with a good connection between teachers, students, through Internet, online educational resources, mass media, in an easily accessible virtual space. ICT specialists are concerned with this aspect, by creating virtually adapted classrooms, sometimes also for higher education virtual institutions, such as École 42, in Paris, which approaches a gamified Curriculum, without teachers.

Regarding the virtualization of education, Constantin Cucos mentioned in his book *Informatization in education: aspects of virtualization of training* that “the multiplication of open and distance education lines, the inclusion of cyber-culture as a new referential in learning, the attraction of the Internet as a source and didactic means, the multiplication in real time of the links between the partners of computer-mediated education, reporting to cyber-space as a privileged environment, computerization of education in general are conclusive examples of the stated evolution.”

In order to transform the virtual classroom into a safe learning environment, it is necessary for the teacher to become more of an information facilitator, to ensure emotional development, creating a safe environment for expression, in which ideas, opinions, arguments are accepted and encouraged.

Examples of using virtual classrooms

The virtual classroom has experienced an unprecedented development, a great diversity: from the use of platforms with predefined activities or that combine such materials with ones created by the teacher, adapted to the needs of their students. From the well-known Google Classroom <https://classroom.google.com/> or Kinderpedia <https://www.kinderpedia.co/ro>, more general, to platforms specialized in different subjects, such as Khan Academy, Formative, Live Worksheets, Mangahigh and ASQ.ro, they all offer a variety of possibilities for creating virtual classes.

Khan Academy <https://www.khanacademy.org/> is a huge collection of lessons presented together with exercises, assessments, extremely useful and well-structured of real use to every teacher, adaptable to every class of students.

Formative <https://www.formative.com/> is a web platform, great for teachers of all experience levels. It's a great way to engage students in learning and give them real-time feedback. In the virtual class created by the teacher on the platform, the students' development and their progress can be very well managed, while the teacher has the possibility create and share quizzes and interactive activities. Quizzes can be customized to suit students' needs and can be used to assess knowledge, measure progress and provide prompt feedback, an opportunity to motivate them.

The Formative platform is easy to use and can be accessed from any device with internet access, using a variety of tools and customizing the appearance and functionality of quizzes to individualize learning, to provide students with interactive activities based on visible learning.



Figure 1. Formative-List of options

Formative also provides a variety of reports that can be used by the teacher to track students' progress and identify areas where students need additional help. The teacher can manage the assessments in real time.

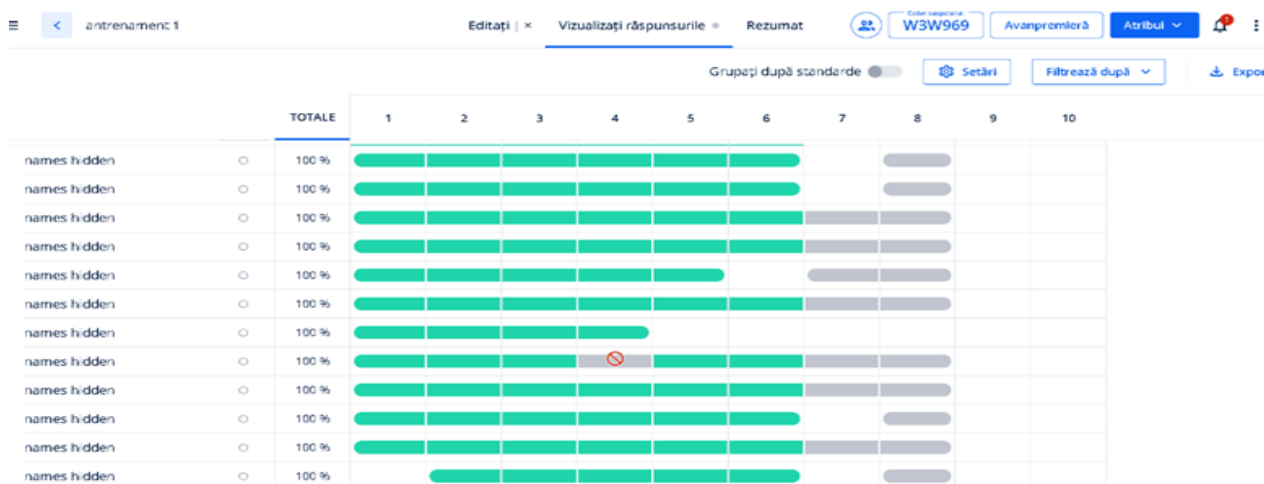


Figure 2. Formative- Real-time viewing of student activity

In the teacher-created virtual classroom, the Beta version of the Formative platform enables the use of AI in the creation of tests according to age and level of difficulty to quickly create progress assessments tailored to the needs of students. These evaluation tests can be applied under the coordination of the teaching staff or with the freedom granted to the student at their own pace.

The Live Worksheets platform <https://www.liveworksheets.com/> makes it easy to create a virtual classroom with worksheets and test collections for students, customizing the teaching approach. It is an online platform that allows the teacher to create and share worksheets with their students. Each worksheet can be customized, tailored to the needs of the students and can be accessed from any device with internet access.



Figure 3. Live Worksheets Platform

Live Worksheets includes a rich variety of options: a vast library of created worksheets that can be used as such or customized, tutorials made to understand the functionality of the platform and how to make worksheets, a variety of tools for creating new worksheets, including a drag-and-drop editor, a question generator and a variety of worksheet structures, various ways to share worksheets, including through links, emails or by integrating in other online learning platforms, in the virtual classroom, a variety of reports that can be used to track student progress and identify areas where students need extra help.

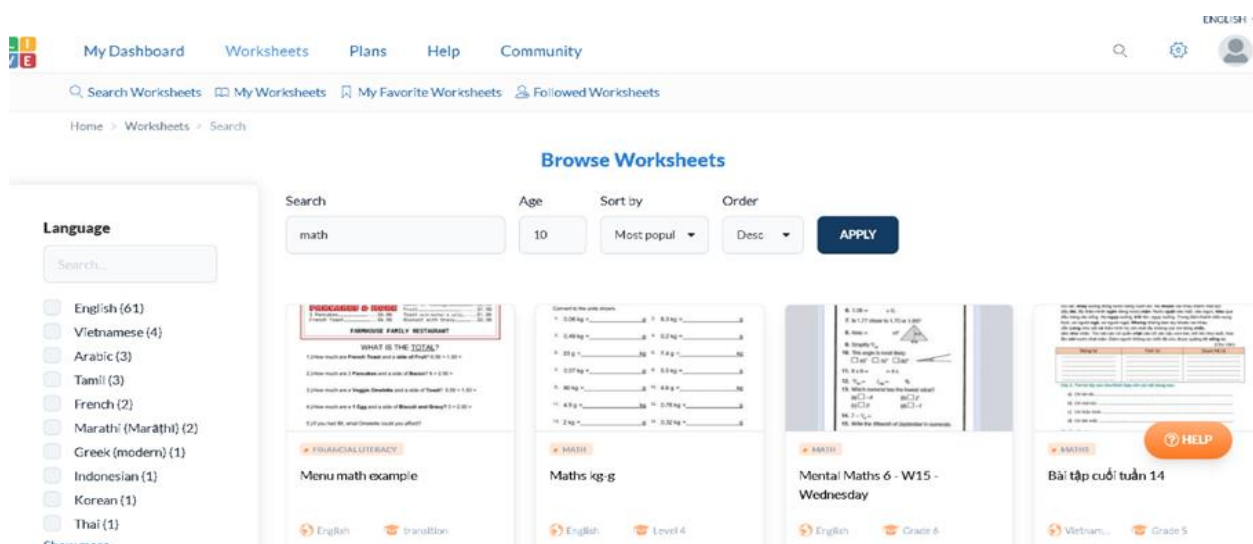


Figure 4. Live Worksheets Platform

Live Worksheets is a great resource for the teacher looking for a way to create and share interactive worksheets with their students, easy to use, with a variety of features for teachers of all experience levels. By simply uploading a .pdf file, interactive worksheets can be created, with the platform analyzing student responses and providing prompt feedback.

The virtual class is also favored by the use of another educational platform, ASQ.ro <https://asq.ro/>, which combines autonomous learning (where students go through the lessons and assessments at their own pace) with traditional learning (where the teacher guides the students). The platform offers a variety of resources and learning opportunities across subjects and educational levels: video lessons, tests, worksheets and discussion forums. The teacher has efficient tools to engage students and monitor their progress, and they can access these resources anywhere, anytime, from any device with internet access.

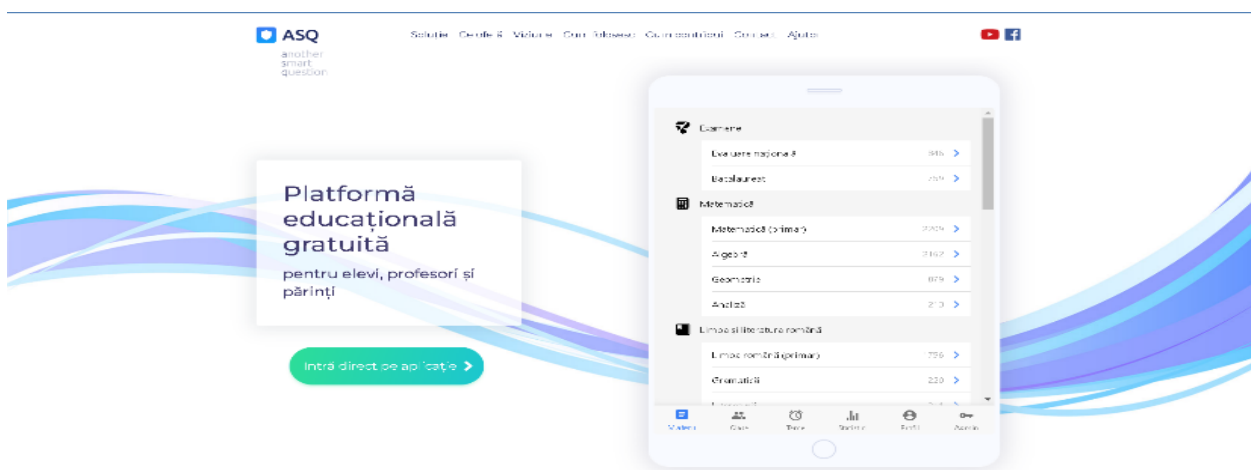


Figure 5. Asq.ro Platform

The ASQ.ro platform encourages autonomous learning, students have the opportunity to go through the lessons as many times as they need and can spend as much time as they need for each lesson, they can go through the tests at their own pace to understand the applications, as the platform providing prompt feedback. This is especially helpful for students who are slower learners or students who need more practice. A support for students is the use of discussion forums with other students or teachers.

Lessons are built using videos, documents, practice activities and quizzes with one, two or three star ratings.

The teacher who uses the asq.ro platform finds numerous advantages: quick access to evaluations with objective and semi-objective items, creation of their own tests (private or which can be made public to benefit other teachers), efficient monitoring of student activity. The tests made public are analyzed by a group of teachers who contribute voluntarily and only after this analysis are they published on the platform. The platform can also connect with Google Classroom.

The teacher observes on the application what the students are working on at that moment, what they need support for, the teacher can also provide different, individualized tasks, assignments and task notifications, time limits, and the grade is

calculated automatically for tests, based on the grading system. In addition to the materials already existent in the application, the teacher can create new ones, adapted to their class. These exercises are available only to his students, who are motivated by appreciation, encouragement, obtaining points and virtual prizes, going at their own pace through the video explanations, exercises, games and tests.

The digital platform Mangahigh, <https://www.mangahigh.com/en/>, offers participants wonderful opportunities to learn mathematics, computer science from the preparatory class to high school. Students' learning efforts are supported by rich intuitive, attractive and interactive materials. Knowledge, mathematical skills and the use of the English language are all practiced.

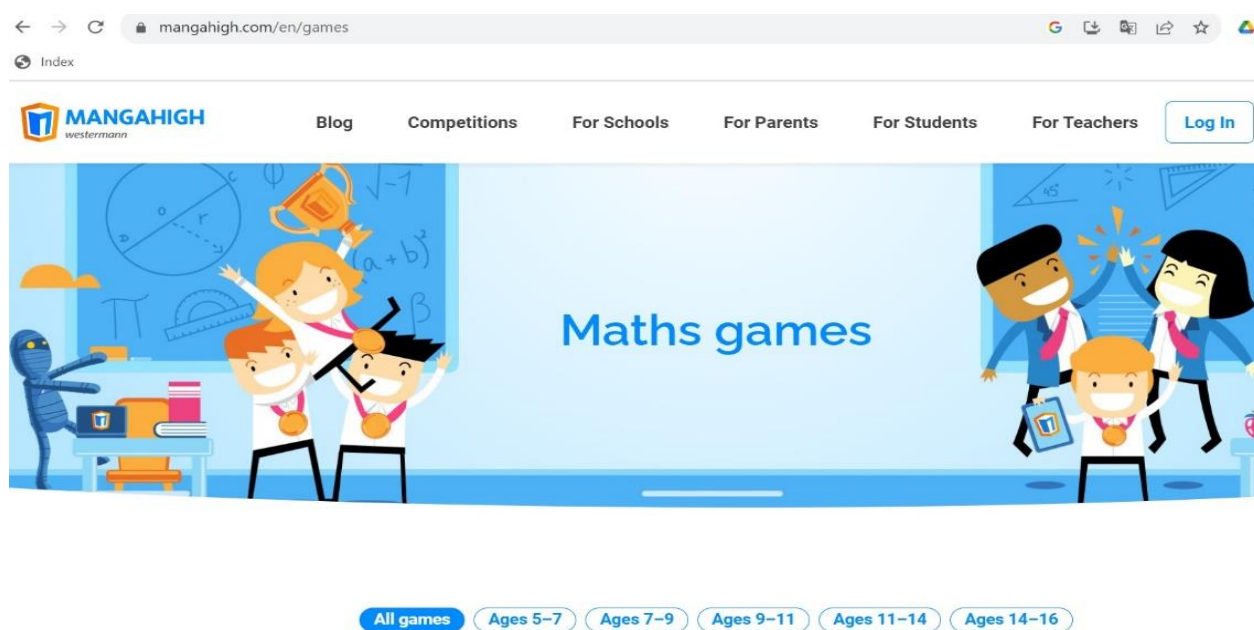


Figure 6. Mangahigh Platform

In addition to the actual lessons, which can also be used for the flipped classroom, there are all kinds of games that consolidate knowledge. Students can receive challenges at a given time, thus realizing a differentiation of their activities, even individualization, while the teacher receives a weekly report on each student's activity. He has the possibility to encourage them, to congratulate them through messages, and the students can also send messages with questions or various ideas to the teachers. The teacher thus monitors the activity of the entire class, follows the progress of the students, how many activities each of them has completed out of the given ones. Students receive prompt and timely feedback, having the chance to observe how they can solve the exercises correctly. They receive virtual medals, depending on their performance. At the end of each month, a

ranking of the participants appears, both by class and by institution or between schools, which motivates the students to persevere and improve their activity.

Different applications and games, like learning apps, *Wordwall*, *Edpuzzle* can be integrated with success in the virtual classroom. These have become familiar to primary school students during the online school (starting from the preparatory class) and the assessment has become much faster and more interesting. These games can be used at various points in the lesson: from capturing attention, updating knowledge, to directing learning, ensuring retention and transfer, obtaining feedback, and assessment. All it takes is a link and students happily participate in these digital activities, fostering discovery learning.

The virtual exhibitions created in [emaze.com](https://www.emaze.com) are also very valuable, which can capitalize on the students' artistic creations, comics on various themes <https://www.emaze.com/education/>. An example of a virtual exhibition presented at Space Week Education, during an international conference about equinox, is <https://www.emaze.com/@ALORFLICZ/equinox-exhibition>.

Conclusions

The advantages of using virtual classes are obvious and ensure their frequent use to improve the quality of teaching, to motivate students to learn, to develop team spirit. Project-based learning makes very good use of resources, efficiently develops the skills necessary for the beginning of this millennium, and exercises the beneficial generational and intergenerational collaboration. Undoubtedly, through e-learning, all those involved in the educational process learn from each other, improve themselves, both in certain fields and in communication, in personal development.

References

- Cucoş, C. (2006) Informatizarea în educație: aspecte ale virtualizării formării (Informatization in education: aspects of virtualization of training) Iași Publishing House Polirom.
- Cucoş, C. (2020) Mediul virtual de învățare – virtuți, servitute (The virtual learning environment - virtues, servitudes), <http://www.constantincucos.ro/2020/04/mediul-virtual-de-invatare-virtut-servituti>

Webography

<https://asq.ro/>

<https://classroom.google.com/>

<https://www.emaze.com/education/>

<https://www.formative.com/>

<https://www.kinderpedia.co/ro>

<https://www.khanacademy.org/>

<https://www.liveworksheets.com/>

<https://www.mangahigh.com/en/>

THE IMPACT OF THE COVID-19 PANDEMIC ON PRIMARY EDUCATION

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ABSTRACT: The effects of the Covid-19 pandemic on education are real and can be found in every social space on the globe. This article highlights the impact that school education during the pandemic had on primary school students. The age and psychological characteristics of primary school students constituted real challenges for digitized education, for lessons taught online by connecting to electronic devices. The ability of primary school education teachers to make online teaching accessible and enjoyable has influenced students' academic progress and their well-being.

Introduction

The year 2020 remains a landmark for contemporary society due to the onset of the Covid-19 pandemic. Moreover, the beginning of March of the same year was the moment when educational institutions physically closed their doors to students enrolled in the education system. The challenge that followed for all countries around the world was to find equitable ways to ensure children's access to education.

In the context of school closures in our country, alternative solutions have been proposed in Romania, which have resulted in access gained by schools to free educational applications licensed by Google and Microsoft. Through these programs, school subjects were taught remotely, through online courses, and teaching materials could be stored and managed to ensure that the subject matter was covered, as well as students' grades. Other online platforms centralized various digital resources, information - to support teachers and students in making learning more efficient, as well as various types of digital textbooks and student tests.

The Covid-19 pandemic has thus launched the challenge of integrating information technologies into the teaching-learning process. The implications of this are manifold and

have positive connotations - such as accessibility to various educational resources, connectivity through the development of users' digital skills - but also negative connotations - related to access to devices or psychological health implications.

While efforts to provide learning are welcome, the effects of the pandemic have negative implications for education outcomes. Jenkins Robert, UNICEF's Chief of Education, points out that “students need intensive support to recover learning losses”. Thus, based on UNICEF's 2022 press release, more than 635 million students are still affected by total or partial school closures. Students have lost basic reading and numeracy skills, with the most affected being the most vulnerable and youngest students. In addition to these learning losses, UNICEF warns of the negative students' mental health effects manifested in anxiety and depression (<https://www.unicef.org/romania/ro/comunicate>).

In general, all over the world, strategies for online schooling focused on effective student learning opportunities. These strategies focused on academic learning and support for teachers to teach online but gave it less priority to the emotional and social development of students. There was considerable variation across countries, and within countries, in terms of when schools reopened and how they did so. Whereas some countries offered both in-person and remote learning options, others did not offer choices. Some schools and countries introduced measures to remediate learning loss as schools reopened, but not all did (Reimers, 2022).

Many voices argue that the pandemic affected education systems because they faced two pre-existing interrelated challenges: educational inequality and insufficient relevance.

Studies on the Real Impact of the Covid-19 Pandemic on Primary Education

Post-pandemic studies carried out by various organizations, such as the *Organization for Economic Co-operation and Development* (OECD), *UNESCO*, *UNICEF*, outline the effects that the Covid-19 pandemic has had on primary education. The study themes of the group of 32 countries participating in the research refer to the impact of the pandemic on the mental health and well-being of students and teachers in relation to the stress, anxiety and depression experienced by them. There is also intense concern about the effectiveness of distance learning strategies during school closures, the impact of school closures on learning outcomes, the impact of the pandemic on non-cognitive skills. The main findings specific to primary education highlighted that children dropped out of school during the quarantine period; 11 countries reported situations of absenteeism, of

which 8 reported an increase in truancy. In 3 countries - Brazil, Costa Rica, and Mexico - primary schools were closed for more than a year (<https://www.edupedu.ro/ce-fac-tarile>).

The study organized by *Save the Children Romania* entitled "The impact of Covid-19 on children in Romania" also reported negative effects of the pandemic on education. Nearly half (out of 5000 children surveyed) did not have access to a tablet or computer, and 47% of children only used their mobile phone to participate in online lessons. These data ranked our country first among other European countries in terms of risk of poverty due to financial pressures on parents during the pandemic. Due to the lack of access to online lessons during the pandemic, some children experienced discrimination and marginalization, which deepened social and educational inequalities, and which have long-term educational and psychological repercussions. In the opinion of the students interviewed, the main negative feelings experienced during online school were boredom (47.5%), followed by tiredness (32.7%), sadness (27.1%) and anger (23.3%).

Primary school students felt the isolation more acutely. The biggest risk reported by children to which they were exposed during this period was internet addiction (54.7%), followed by false information and online bullying (<https://www.salvaticopiii.ro>). The negative effects of online schooling can thus be seen in the following aspects: pupils' educational progress, their emotional health, and their safety online.

The quarantine situation in the pandemic and distance learning are factors that have led to phenomena with a negative impact on the emotional dimension of students. Lucia Chitoroaga (2021, p. 45), points out that the problem of anxiety is increasingly visible in contemporary students. This state is caused by factors such as: media overloaded with aggressiveness, ever-changing social demands, virtual reality that threatens to take the place of objective reality.

The Specifics of Primary Education

Psychological Profile of the Young Schoolchild

The early school age ranges from 6-7 years to 10-11 years. Physically, there is a general strengthening of the body. In terms of thinking, it is detached from the data of intuitive global perception and there is a tendency towards decentralization, which occurs when the child, overcoming his egocentricity, achieves adequate reflection by acting more and more effectively on the object. Knowledge is achieved through logical, concrete, objective operations, whose defining feature is reversibility. Around the age of 10, the stage of notional thinking is reached, organized around notions of time, space, number, cause, and movement. The capacity for knowledge also increases thanks to memory, so

from the age of 9 the schoolchild can learn almost anything. At this stage of development, visual, auditory, and kinesthetic memory is developed, and the first general skills are developed, which enhance learning success. The young schoolchild's social life also becomes more active, because this is the age of friendships and camaraderie. The child feels the need to live collectively, to participate in common activities; he becomes aware of the collective feeling of solidarity. Life in the collective class implies familiarity with the requirements of social life; the schoolchild assimilates rules of conduct, according to which he regulates his attitudes and relations with others, due to the feeling of belonging (Nicola & Farcaș, 1992, p. 38-39).

The school environment brings a different climate from the family one, and the changes that occur in the child's life in the new environment, the school educational environment, will influence his personality. The primary school student becomes capable of collective feelings, and this is why this period is difficult for emotional, shy children, who find it hard to integrate into group life. The status of a schoolchild, with its new demands, increases the social importance of what the child now undertakes and achieves. The personality of the young schoolchild becomes more capable of independence and self-determination, due to the development of the ability to voluntarily direct their conduct and plan their activity and is inclined towards mature attitudes and controlled manifestations. A positive attitude towards learning is now being formed. Due to the need to establish interpersonal relationships with peers, social contacts develop and increase, increasing the child's socialization index. Relationships between children are regulated by situational, momentary criteria, so they can be described as unstable. Interpersonal attitudes are centered on the leader of the group, who at this age is mistaken for the best student. After the age of nine, there is also a variation introduced by the gender distinction, which causes girls and boys to separate spontaneously in games. Interpersonal friendship develops under the impact of joint activities, as does a sense of responsibility, gentleness, and affectionate giving. Thanks to social interaction, new character traits are formed, and the self-image of the primary school student crystallizes (Golu, Zlate & Verza, 1995).

The start of the school chapter is the beginning of learning activity that requires intellectual effort on the part of the schoolchild. The success of this effort is influenced by factors such as: the pupil's physical development, the specific pace of work, the environment and school climate found in the classroom, and the ability to adapt to school.

The impact of technology on primary school students

Technology is becoming indispensable in society, but also in the educational process. The Covid-19 pandemic has accelerated the digitization of education, so educational technologies have become important resources to stimulate pupils' interest in learning, and useful learning tools. Today's children are very tech-savvy and quick to handle electronic devices. Technology used appropriately and in a balanced way for children results in benefits such as: it stimulates fast and creative learning, develops users' technological skills, develops visual, auditory, and kinesthetic learning skills as it operates multiple tasks in a short time, improves visual-spatial development. In order to eliminate the negative effects of technology, parents and teachers need to guide the balanced use of technology for learning and not digital addiction (www.miciideveloperi.ro).

The negative effects of technology on children include lack of social interaction leading to loss of communication skills, health risks due to lack of physical movement, learning difficulties for children who spend more than two hours a day in front of screens, sleep disorders due to the light from devices, behavioral disorders (due to violent video games), addiction. This recent data, published in 2021, is intended to alert significant people in children's lives to the negative impact of technology (www.sfatulparintilor.ro).

Technology reduces the ability to memorize. More and more studies indicate that technology affects memory. As far back as antiquity, the philosopher Socrates believed that the technology of the alphabet would make it easier to store information, but slow down memory. Giving up the tradition of memorization is an increasingly accelerating trend in the age of technology. Studies show that young people who use technology are less able than older people to remember personal details about people in their lives. On the other hand, access to the Internet creates dependence on technology, on an external memory that stores data, and the risk of affecting mental agility is increasingly real (www.descopera.ro).

Ventouris, Panourgia and Hodge's (2021) study of teachers' perceptions of the impact of technology on students' emotions and behavior is intended to alert to the balance needed in the use of technology in classroom teaching. Time spent using technology can have negative effects on learning by causing attention difficulties and problems in visual memory and imagination. The technology used by teachers produces learning compared to how students use it. Integrating technology into education in a balanced and coordinated way by teachers is effective and produces learning. However, teachers feel that technology can expose children to inappropriate content and hinder their socialization processes due to isolation. Donohue (2015) also warns of the negative impact of technology on children's social and emotional development. Frequent

interaction with technology is associated with anxiety and depression. Teachers investigated (2021) and observed that students who play violent video games have trouble concentrating, react faster to stimuli and are more easily drawn into arguments, even copying violent behaviors from games. In terms of social interaction, it is reduced, and students no longer know how to play, but rather film amusing things around them which they then share in cyberspace. Pupils find it difficult to relate to others and are thus prone to social isolation.

The Impact of the Covid-19 Pandemic on Primary Education - Online Teaching and Learning Experiences

During the pandemic my students were in grades 3 and 4, being aged 9 - 10. Psychologically and socially, their development was much more stable than in the early school years. Children have already mastered the basic skills of writing, reading and arithmetic, and can operate with notions. Knowledge ability is on an upward trend. The social life of my pupils has been marked by a sense of belonging, friendship, and solidarity thanks to the previous 3 years of coming together as a group. Also, the ability to use the devices has been very good. These characteristics were the positive aspects that supported the teaching activity in the online school during the Covid-19 pandemic.

The challenges of teaching and learning online were also significant. These were driven by a number of factors. To capture the multitude of factors, we have grouped them into categories such as:

a) technological factors

In the first phase of online schooling, May-June 2020, there were students who did not have devices to connect. Families with several children were unable to provide a device for each to connect. During this period, most pupils used mobile phones.

Internet connectivity was another technological challenge. During participation in online lessons there were situations that interrupted the teaching process due to fluctuations in internet connection.

The way the devices were used sometimes disrupted the teaching process by noise, due to the use of the microphone; images that the children displayed during the presentation; children's curiosity to discover the tools of the app that they accessed during the lessons, and thus directed the attention of others to the app settings.

b) use of technology

At the beginning of the online school, we used social media communication. We sent text or video messages via WhatsApp, later the Zoom app was useful to establish connections with children and direct transmission of information during the lessons.

In the next school year, 2020-2021, the national measures have led to a settling of things due to the use of educational platforms offered by Google or Microsoft. The challenge that followed was to use these resources in teaching and learning. Familiarizing themselves with the way information is transmitted in this way required a great deal of work on the part of teachers and pupils, and so a learning effort was needed on the part of both to use the application. This resulted in delays on the part of the pupils in uploading the materials. Providing feedback from me to students on the correctness of assignments was sometimes blocked due to students not being able to install on their device the app that allowed this.

The *synchronous* (direct connection to the receiver - synchronization of students with the teacher) - *asynchronous* (learning does not take place at the same time as teaching) mode of working has been demanding for both students and teachers. In synchronous mode, in the actual delivery of the online lessons, we had more control over the lesson and the children's participation, whereas in asynchronous mode we could not check whether all the students had gone through the material uploaded to the learning platform.

c) relationship with the family

In the first phase of the pandemic, family demand was intense because we used the WhatsApp conversation with parents to send teaching materials. In the following period, the family also had to ensure that the children were connected to the Internet for access to the online school and to supervise the children's timely submission of their materials and homework. Thus, organizing and managing time was a challenge for the children, for their families - especially when both parents were at work – and for their teachers.

d) relational factors

The social characteristics of primary school students are marked by the need to socialize, to connect with peers. This is the only way to develop the skills needed to integrate into social life. This contact was lacking during online schooling in its physical form. The virtual connection could only sustain visual contact between children. This was very much expected in the early phase of the onset of the pandemic, when children were waiting to see each other; even at the end of lessons they would ask me not to turn off the app, so that they could still spend time together, as they were eager to see each other and communicate.

On the other hand, in virtual space you can't have several children communicating at once. This caused frustration for the more withdrawn children who could not communicate with others because the talkative ones monopolized the conversations.

If in the initial phases the children wanted to be together in the virtual space, as the technology was used for a long time, we noticed that they waited for the breaks between lessons to disconnect, to withdraw from the devices.

So, in online schooling, the direct pupil-teacher relationship has seen multiple losses. The relationship mediated by technology is not equivalent to the direct relationship in the school space, especially for young schoolchildren for whom proximity to the teacher is fundamental. On the other hand, primary school students are in an intense process of socialization, of acquiring social skills, thanks to the interaction in the school space with peers, but the absence of these stimuli has negatively influenced children's social integration and their emotional development, so evident at this age.

e) psychological factors

The psychological well-being of primary school students was influenced by online schooling. In a positive sense, children could log on from anywhere in their home, they could attend lessons dressed in whatever way they liked, they could relax during breaks like 'at home'.

In a negative sense, however, there were pupils who did not feel comfortable having the room on, so that their personal space was not invaded. The multitude and complexity of some of the work tasks, as the children said, disturbed their mental comfort especially because, in addition to doing written homework, they had to make extra efforts to attach it to the app and then follow the instructions they received from the teacher after correcting the homework. This intense activity, which they had never encountered before, caused irritability and fatigue for both the children and the class teacher.

The excitement of the early days of online schooling began to be replaced by boredom, however interactive the learning actions were, in my view.

Children's anxiety increased due to these psychological pressures, as well as the epidemiological context. At each new connection they wondered or communicated whether among their acquaintances there were infected with the new virus, whether the health of their loved ones was affected. According to Reimers (2022), the prolonged stress caused by uncertainty about pandemic – anyone could be infected and could lose his life - created a traumatic context that undermined the concentration and dedication required for schoolwork.

f) personal experience

Personally, as an individual and as a primary school teacher, the teaching work I have done in the online school has been challenging. Efforts to maintain the quality of education have been significant. I have sought to develop my digital skills and competencies to ensure that every piece of teaching content planned for my students is taught and assimilated by all children. I have sought to maintain uninterrupted relationships with each student's family to make parents aware of school progress or regression. The amount of work and effort put in increased due to online lesson preparation, extra time for checking materials uploaded by children and providing feedback.

On the other hand, there has been a growing degree of insecurity about the effectiveness of teaching-learning, about identifying the needs of my students and the possibility of real communication with them. Obviously, the pandemic has affected both home and school conditions which supports students' access to learning, regular attendance and time spent in learning.

However, I wouldn't want to stick only to the negative challenges, as the beauty and mastery of the teacher must be demonstrated in any learning situation, because of the love for the students. In online school I have been challenged to use the best educational resources to make learning accessible to my students. I have also been challenged to maintain group dynamics, even in the virtual classroom, and to find the most effective ways to communicate.

Connecting with children and continuing the noble act of teaching them has been the most beautiful aspect in a time of health and life threats, at a time when a new term has resonated everywhere: Covid-19.

Conclusions

The pandemic limited student opportunity for interactions with peers and teachers and for individualized attention - decreasing student engagement, participation, and learning - while augmenting the amount of at-home work which, combined with greater responsibilities and disruptions, diminished learning time while increasing stress and anxiety, and for some students, aggravated mental health challenges. The pandemic also increased teacher workload and stress, while creating communication and organizational challenges among school staff, and between them and parents (Reimers, 2022).

Primary school education was challenged during the Covid-19 pandemic to ensure the academic progress of pupils by interweaving the age and psychological particularities

of young schoolchildren with technology. The effects of the Covid-19 pandemic on education are real, the educational repercussions are visible in the existence of gaps or even school regression where primary school students have failed to learn in online school. The ability of primary school teachers to make online teaching accessible and enjoyable has influenced students' academic progress and well-being.

The impact of the Covid-19 pandemic is now challenging education to take action to reduce educational losses but also to reform and adapt traditional education to the technological age.

References

- Chitoroagă, L. (2021). Anxiety in preadolescents. *Personal Development and social integration of educational actors*. Materials of the Scientific Conference with international participation of 12 November 2021, UPS "I. Creanga". Chisinau: S.n., CEP UPS, 45- 55.
- Donohue, C. (Ed.). (2015). *Technology and digital media in the early years. Tools for teaching and learning*. Routledge, 21-35.
- Golu, P., Zlate, M., Verza, E. (1995). *Child psychology*. Bucharest: Didactic and Pedagogical Publishing House.
- Nicola, I., Farcaș, D. (1992). *General pedagogy*. Bucharest: Didactic and Pedagogical Publishing House.
- Reimers, F.M. (2022). Learning from a Pandemic. The impact of COVID-19 on education around the world. F.M. Reimers (ed), *Primary and Secondary Education During Covid-19*. Switzerland: Springer, 1-38.
- Ventouris, A., Panourgia, C., Hodge, S. (2021). Teachers' perceptions of the impact of technology on children and young people's emotions and behaviours. *International Journal of Educational Research*. Open 2. doi.org/10.1016/j.ijedro.2021.100081

Internet articles

- What countries are doing* - published 7 July 2022 - <https://www.edupedu.ro/ce-fac-tarile-organizatiei-pentru-cooperare-si-dezvoltare-in-europa> - accessed 20 May 2023.
- Covid-19: Level of learning loss is 'almost insurmountable', warns UNICEF* - <https://www.unicef.org/romania/ro/comunicate-de-pres%C4%83/covid-19-nivelul-pierderilor> - accessed 20 May 2023.
- The impact of Covid-19 on education* - <https://www.salvaticopiii.ro/ce-facem/educatie/vreau-la-scoala/impactul-covid-19-asupra-educatiei> - accessed 23 May 2023.
- How technology impacts children* - <https://www.miciidevelopeperi.ro/articol/impactul-tehnologiei-asupra-copiilor> - accessed 27 May 2023.

6 *negative effects of technology on children* - published 15.08.2021 -<https://sfatulparintilor.ro/prescolari/comportament-si-dezvoltare/6-efecte-negative-ale-tehnologiei-asupra-copiilor/2/> - accessed 27 May 2023.

Technology radically changes our memory by Marius Comper – published on 12.07.2011 – <https://www.descopera.ro/stiinta/8483465-tehnologia-ne-schimba-radical-memoria> – accessed 30.05.2023.

THE DEVELOPMENT OF DIGITAL COMPETENCE IN PRIMARY SCHOOL STUDENTS

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ABSTRACT: Since for the primary cycle no discipline is stipulated in the framework plan to develop digital competence, it can be developed through integrated activities within other study disciplines. The present paper aims to show the impact of the introduction of digital technology in the mathematical activities of the class of students. It presents a longitudinal study, in a class of primary school students, using the observation grid as a study method. Based on three models of learning, the grid evaluated three areas of interest such as: collaboration, motivation, and the acquisition of skills (digital and mathematical).

In contemporary society, digital competence is a necessity to cope with the pace of technology development. This is not just about device use skills; it is much more than that. This "implies the confident, critical and responsible use of digital technologies in contexts of learning, work, and participation in social activities. It includes digital literacy, communication and collaboration, media literacy, digital content creation (including programming), safety (including digital wellbeing and cyber security skills), respect for intellectual property, problem-solving, and critical thinking", according to the Strategy for the Digitalization of Education in Romania (MEN, 2020, p. 15).

The present work represents research carried out with primary school students in which the impact of the introduction of technology in classroom activities is studied. Being based on studies from the specialized literature, it specifically considers three models of learning: the "community of interest/investigation" model (D. R. Garrison, T. Anderson and W. Arche) (Ceobanu, 2020, p. 128) starts from the premise that the effectiveness of learning and the learner's motivation depend on relating in three dimensions: educational presence, social presence, and cognitive presence. The cognitive theory of multimedia learning (R. E. Mayer) (Ceobanu, 2020, p. 129) emphasizes the role of sensory memory in the learning process. The online collaborative learning model (L.

Harasim) (Ceobanu, 2020, p.132) starts from the premise that the evolution of technology and new media has significantly influenced the teaching-learning-evaluation process, with the focus being on collaborative learning.

It is known that since 2011, according to the National Education Law, the European Curriculum has in mind the development of the eight key competences established at the European level: literacy competence, linguistic competence in several languages, mathematical competence, and competences in science, technology and engineering, digital competence, competence of personal, social development and learning to learn, civic competence, entrepreneurial competence, awareness, and cultural expression competence.

The training profile of the 4th-grade graduate, i.e., of primary education, establishes that these are developed at the elementary level during the five years. On a careful study of the school programs and the framework plan, we can see that we do not have any mandatory discipline stipulated that takes into account the development of digital competence. Moreover, it is recommended that it is developed within activities integrated with other study subjects, but mentions of such examples of learning activities are very few.

Another reason that is at the basis of this work is the period in which the students had to learn online, from home. With the support of adults, they attended classes and learned some notions of using educational platforms. By returning to school in physical form, they were able to put these acquired skills to fruition and develop them.

We also take into account the specifics of the generation of students, digital natives. Today learning no longer means memorizing a volume of information, but rather identifying a necessary resource, having skills in critical analysis, and using it in appropriate contexts. This information overload is easily managed with the help of computers. Their use has influenced the mechanisms of human learning. Learning with the use of technology has a different setup. Pupils and students find it easy to find connections, explore the world in an intense but discontinuous manner, and jump from one idea to another. What particularly caught my attention was the fact that these children who have had access to phones and tablets from a young age and who have had to spend school hours in front of screens have not developed the digital literacy to support them in learning.

The learning stage did not take place in an exclusively digital-focused way, but the approach was integrated. Thus, within the Fun Mathematics classes, students studied certain mathematical contents using digital platforms, applications, and games. As you will see in this paper, not only did they significantly improve their skills, knowledge, and attitudes toward the digital domain, their math results and motivation to learn increased.

Based on the three models of learning mentioned above, three study hypotheses were developed. They start from the premise that the introduction of digital technology into classroom activities will bring improvements in student motivation, learning effectiveness, and improved collaboration.

The “community of interest/investigation” model (D. R. Garrison, T. Anderson, and W. Arche) described by Chirca (2020) starts from the premise that the effectiveness of learning and the motivation of the learner depend on the relationship in three dimensions: educational presence, social presence, and cognitive presence. Online learning or blended learning ensures the three types of presences: educational (by setting clear objectives, providing quick feedback), social (sharing opinions and experiences with other group members) and cognitive (ensuring retention through varied representations of the same content, encouraging self-assessment).

HYPOTHESIS 1: The introduction of digital technology in educational activities contributes to increasing students' motivation for involvement in activities.

The cognitive theory of multimedia learning (R. E. Mayer) described by Chirca (2020) emphasizes the role of sensory memory in the learning process. By using digital technology in classroom activities, students are exposed to more ways of presenting content, thus facilitating the assimilation of information in a shorter time frame. With the help of new technologies, contents are presented multidimensionally, which ensures a higher degree of efficiency than their monovalent presentation (in the form of text or image).

HYPOTHESIS 2: Teaching and learning with the help of digital technology facilitates the development of skills in students involved in the activity.

The online collaborative learning model (L. Harasim) described by Chirca (2020) starts from the premise that the evolution of technology and new media has significantly influenced the teaching-learning-evaluation process, with the focus being on collaborative learning. Participants aim to drive the group's progress toward solving the problem or achieving a goal. The teaching staff is a facilitator and an active member of the learning group.

HYPOTHESIS 3: The use of digital technology in the classroom improves collaboration between students to achieve the objectives of the activity.

The study tool was an observation grid that was structured starting from the study hypotheses. After activities such as: informing and gaining consent from parents, lessons on internet safety, and the development of students' autonomy in the use of technology, ten integrated lessons were implemented, that aimed to develop the mathematical skills taken from the School Curriculum for MATHEMATICS AND ENVIRONMENTAL

EXPLORATION Reception year, 1st and 2nd form Approved by ministerial order No. 3418/19.03.2013, along with the development of digital skills.

Activity observation grid

Date:

Activity:

Name of the student	Assessed domains								
	The motivation for involvement in the activity			Collaborate with colleagues in order to solve the task			Achieving the objectives of the lesson		
	Brings the necessary devices for the activity	Participate with interest in the activity	Does not prepare for the activity, does not show interest	Collaborate with colleagues	Solve the tasks individually	Distracts the attention, prevents the smooth development of the activity	Goes through the steps necessary to solve the tasks	Performs tasks with mathematical content	Fails to complete the steps necessary to solve the tasks

Figure 1. Observation grid

During the implementation of the 10 activities, the students' behaviors were recorded, considering three dimensions: the development of digital and mathematical skills, the increase of motivation for involvement in the activities, the collaboration between the students during the activities. At the end of each 50-minute activity period, the observations made were recorded in the observation grid, noting the behavior of each student in the three evaluated dimensions.

Description of key competences by levels: elementary, functional, and developed. Benchmarks for the design and updating of the national curriculum. Educational policy document. Content on digital educational platforms was addressed in the form of games, tests, worksheets with a digital completion option, and mathematical exercises. In each class, technology (laptop, video projector, phones, tablets) and digital educational platforms were used in teaching-learning and assessment activities.

Following the analysis of the reflections at the end of each activity and of the observation grids, it was concluded that the three hypotheses were confirmed. A number of advantages of using technology in learning activities, and challenges, but also disadvantages or possible risks emerged. The present research also has certain limits, such as the fact that it was carried out over a relatively limited period of time, in a school in an urban environment where the material possibilities of families and the level of education are increased compared to schools or communities in some rural environments.

Through this applied pedagogical research, empirical knowledge of the impact of the introduction of information and communication technology in classroom activities

was pursued. With the help of the observation method, findings of the teaching staff were repeatedly recorded at the end of the implementation of each proposed activity during a semester.

Considering the three working hypotheses and the observations made at the end of the implementation of each stage of the research, we can conclude the following:

1. Students were much more motivated to engage in Mathematics and Environmental Exploration activities in which they used technological means, applications, and educational platforms than in regular activities. Therefore, the first hypothesis, according to which the introduction of digital technology in educational activity contributes to the increase of students' motivation for involvement in activities, is affirmed.

2. Mathematics and Environmental Exploration skills and digital skills proposed as the objectives of the implementation of the proposed activities were developed in the students involved in the activity. Autonomy in the use of digital devices for educational purposes has increased significantly from the first to the last stage of implementation. Students also developed the targeted mathematical skills in these activities. Therefore, we can conclude that this hypothesis according to which teaching and learning with the help of digital technology facilitates the development of the targeted skills in the students involved in the activity is affirmed.

3. The observations made at the end of the activities highlighted the collaboration between the students to achieve certain tasks. They showed their willingness to help their colleagues who did not develop digital skills, thus showing empathy. In the activities that entailed collaborative learning, the students went beyond the individualism phase and engaged in teamwork to solve a common task. We can conclude that the hypothesis according to which the use of digital technology in the classroom improves collaboration between students to achieve common goals is affirmed.

We conclude that the impact of the introduction of information technology in teaching-learning-evaluation activities in the class of students is a positive one. Within the limits of maintaining a balance between the excess of technology and the exclusion of traditional means and the variant of resistance against changes in the current world, the particularities of the generation of students, information technology, educational platforms and digital devices come to the support of students, parents, and teachers.

References

- Borzea, A. (2017). *Integrarea curriculară și dezvoltarea capacității cognitive*. Iași: Polirom.
- Ceobanu, C., Cucos, C., Istrate, O. & Pânișoară, I.O. (2020). *Educația digitală*. Iași: Polirom.
- Comisia Europeană (2020). Învățarea online în timpul izolării, available at https://wayback.archiveit.org/12090/20220517105415/https://ec.europa.eu/info/strategy/recovery-plan-europe/recovery-coronavirus-success-stories/digital/e-learning-through-lockdown_ro
- Comisia Europeană (2021). Indicele economiei și societății digitale – România 2021, available at <https://digital-strategy.ec.europa.eu/en/policies/desi-romania>
- Consiliul Uniunii Europene (2018). Recomandarea C.E. din 2018 privind competențele cheie pentru învățarea pe tot parcursul vieții. Jurnalul Oficial al Uniunii Europene, available at [https://eur-lex.europa.eu/legal-content/RO/TXT/PDF/?uri=CELEX:32018H0604\(01\)&from=EN](https://eur-lex.europa.eu/legal-content/RO/TXT/PDF/?uri=CELEX:32018H0604(01)&from=EN)
- CRED, Resurse educaționale deschise și platforme online de învățare. Suport de curs, available at https://formare.educared.ro/resurse/CRED_P_M32_suport_RED.pdf
- CRED, Un nou Curriculum național pentru învățământul primar și gimnazial – conceptualizări necesare. Suport de curs, available at https://formare.educared.ro/resurse/CRED_P_M12_Noul_curriculum.pdf
- Cucos, C. (2009). *Psihopedagogie pentru examenele de definitivare și grade didactice*. Iași: Polirom.
- EDU (2021). România Educată - Raport, available at <http://www.romaniaeducata.eu/wp-content/uploads/2021/07/Raport-Romania-Educata-14-iulie-2021.pdf>
- European Commission (2014). Initial teacher education in Europe: an overview of policy issues, available at <https://paperzz.com/doc/8128947/initial-teacher-education-in-europe--an-overview-of-polic...>
- Grosseck, Gabriela (coord.) (2020). *Ghid practic de resurse educaționale și digitale pentru instruire online*. Timișoara: West University of Timisoara Publishing House
- Hattie, J. (2014). *Învățarea vizibilă: ghid pentru profesori*. Bucharest: Trei Publishing House.
- Magomedov, A. (2020). The negative and positive impact of the pandemic on education. Journal of Physics: Conference Series, available at <https://iopscience.iop.org/article/10.1088/1742-6596/1691/1/012134/pdf>
- Ministerul Educației și Cercetării (2021). Strategia privind digitalizarea educației în România, available at <https://www.edu.ro/sites/default/files/SMART.Edu%20-%20document%20consultare.pdf>
- Ministerul Educației și Cercetării, Smart – Edu. Școala Modernă Accesibilă bazată pe Resurse și Tehnologii Digitale, available at <https://www.edu.ro/sites/default/files/Strategie%20SMART-Edu.pdf>

- Onyema, E. (2020). Impact of Coronavirus Pandemic on Education. *Journal of Education and Practice*, 11(13), available at https://genbase.iiep.unesco.org/workspace/applis/epidoc/fichiers/EPIDOC/38698_52821_56584_1_PB.pdf
- Palade, E. (coord.) (2020). Repere pentru proiectarea, actualizarea și evaluarea Curriculumului național. București, Proiect CRED, available at <https://isj.vs.edu.ro/download/Repere-pentru-proiectarea-actualizarea-si-evaluarea-curriculumului-national-Cadrul-de-referinta-al-curriculumului-national-ISBN1.pdf>
- Planul de acțiune pentru educația digitală (2021-2027). Adaptarea educației și formării la era digitală, available at <https://education.ec.europa.eu/ro/focus-topics/digital-education/action-plan>
- Popa, N. L., Antonesei, L. & Labăr, A. V. (2009). *Ghid pentru cercetarea educației. Un "Abecedar" pentru studenți, masteranzi, profesori*. Iași: Polirom.
- Ranieri, Maria (2012). Dezvoltarea Competențelor Digitale, Virtual Stages Against Violence, DAPHNE Project, Salvați Copiii, available at https://cesie.org/media/VSAV-toolkit_ru.pdf
- Roman, G. (2014). Ghidul utilizării în siguranță a Internetului, available at https://oradenet.ro/docs/Ghidul_utilizarii_in_siguranta_a_Internetului.pdf
- Salvați Copiii, Impactul COVID - 19 asupra educației, available at <https://www.salvaticopiii.ro/ce-facem/educatie/vreau-la-scoala/impactul-covid-19-asupra-educatiei>
- SIVCO România, SEI - SISTEMUL EDUCAȚIONAL INFORMATIZAT, available at <http://www.sivco.ro/ro/despre-sivco-romania/studii-de-caz/sei>
- Vermersch, J. (2013), *E-learning pentru învățământul primar și preșcolar. Ghid de bune practici pentru îmbunătățirea procesului de predare – învățare*. Brussels: Bart Vliegen.
- World Vision România (2022). Educația și viața copiilor vulnerabili în perioada pandemiei, available at www.worldvision.ro

GOOD PRACTICES FOR ONLINE TEACHING AND LEARNING

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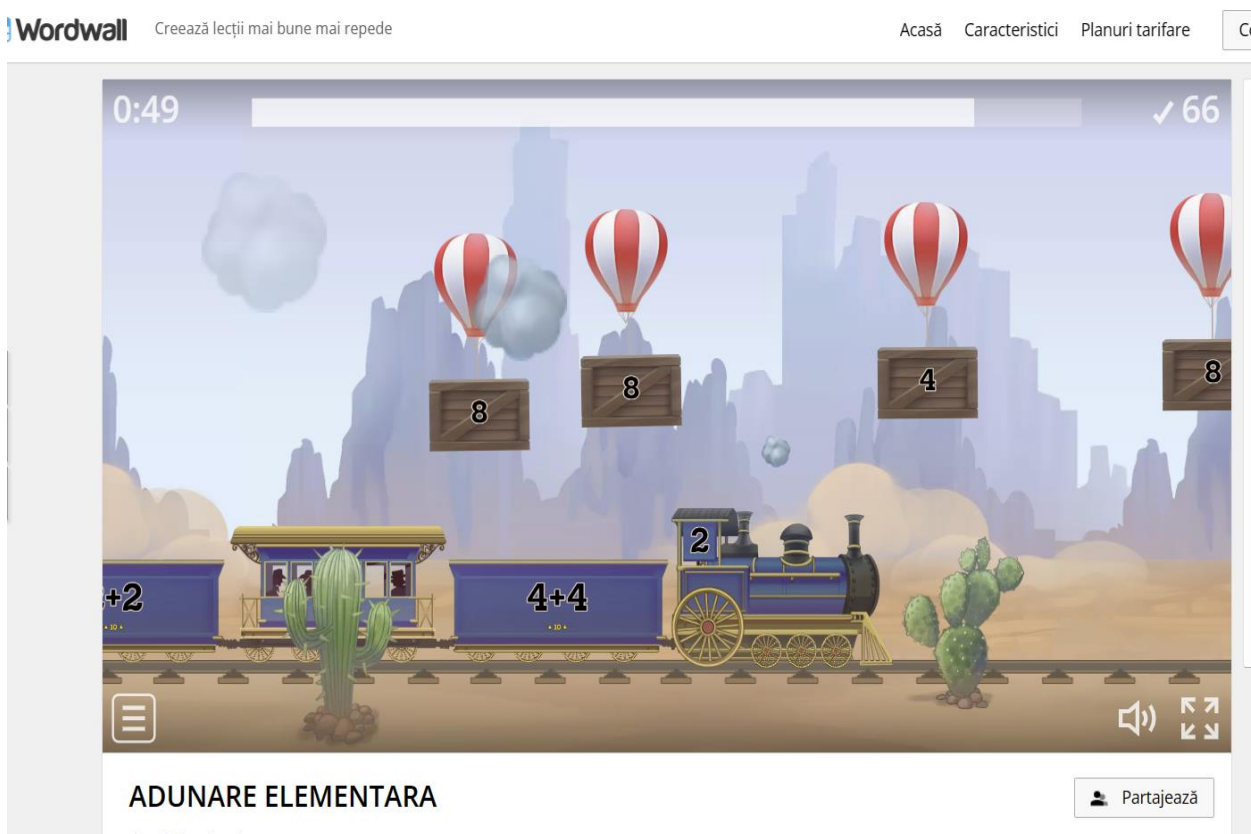
Abstract: Although online schooling was a novelty at the beginning which took us by surprise, and online teaching and learning were accompanied by feelings of curiosity and fear, over time it has been proven to bring benefits in teaching, as well as student learning. Online lessons remind us of the existence of digital resources that we can explore, try, and successfully use for students' learning through games and interactive activities. This article presents some examples of useful and specific digital resources for primary education in online teaching and learning.

Online teaching and learning represent a new approach to education, which, in order to be effective, must be centered around the development of self-education skills, both for teachers and students. Although online schooling was a novelty at the beginning which took us by surprise, and online teaching and learning were accompanied by feelings of curiosity and fear, over time they have proven to be useful in instructional and educational activities. Thus, throughout the lessons, various digital resources have been used, bringing benefits in teaching, as well as student learning. Through online platforms and applications, various worksheets, interactive games, and other educational resources can be created, useful in the teaching and learning process.

Online lessons remind us of the existence of digital resources that we can explore, try, and successfully use for students' learning through games and interactive activities. Teachers can try various applications and choose what they consider suitable for each class of students, depending on availability, age, and devices owned by students.

In the following, we will present some examples of useful and specific digital resources for primary education in online teaching and learning:

- **Wordwall.net** (<https://wordwall.net/ro>) is a platform that includes various interactive exercises, offering teachers the possibility to create interactive games for each lesson. The platform can be used both to capture students' attention and to reinforce or deepen knowledge within a lesson, being useful for subjects such as Romanian language and literature, mathematics, environmental exploration, natural sciences, history, geography, etc.



- The website www.manuale.edu.ro (**digital manuals**) offers the possibility of digitally browsing all the current manuals. Digital manuals are interactive, containing videos and songs specific to the covered lesson for each subject. For example, in first grade, most digital manuals contain videos with the steps necessary in handwriting, providing support in teaching for teachers and learning for students.



- **Clasamea.eu** (<https://clasamea.eu/>) is a website that shares educational materials, activities, and useful experiences for teaching and learning activities. The materials offered on the site are suitable for all subjects in primary education. Numerous worksheets, posters, creative ideas for practical work, and more can be found and downloaded for free. These can be successfully used to introduce a new lesson, guide learning, or reinforce knowledge. In addition to materials, the site also offers ideas for good teaching practices.

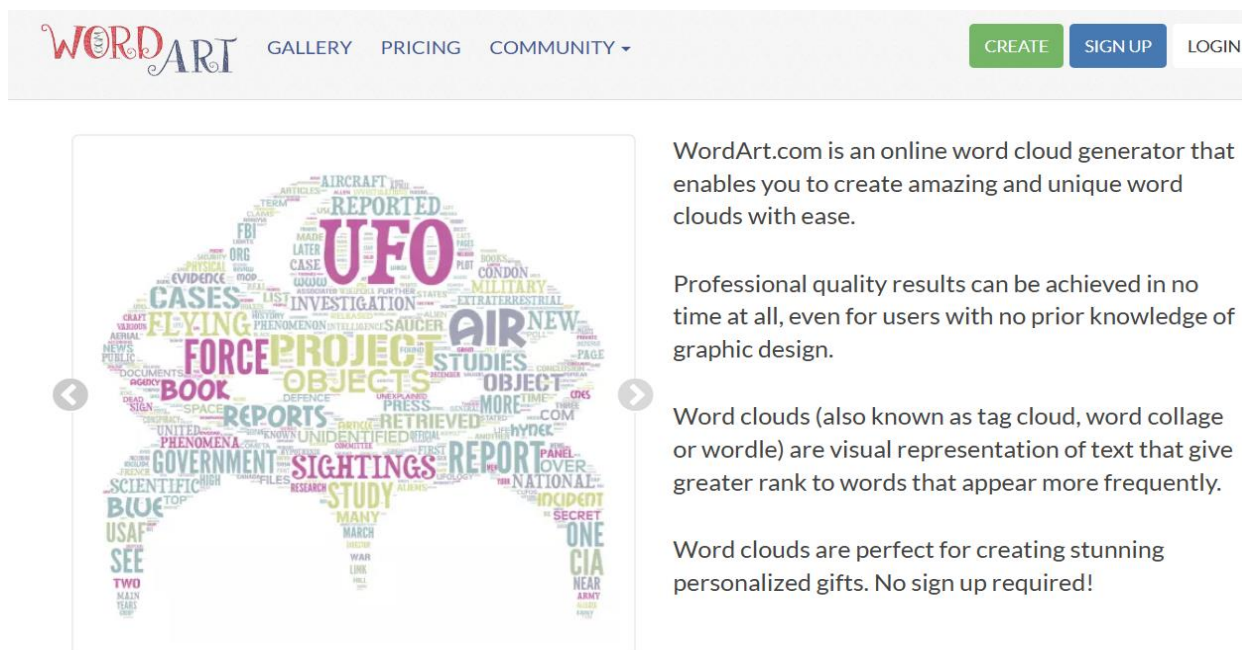


- The **Learning Apps** app (<https://learningapps.org/>) is useful for creating interactive games and content for primary school students. Through the

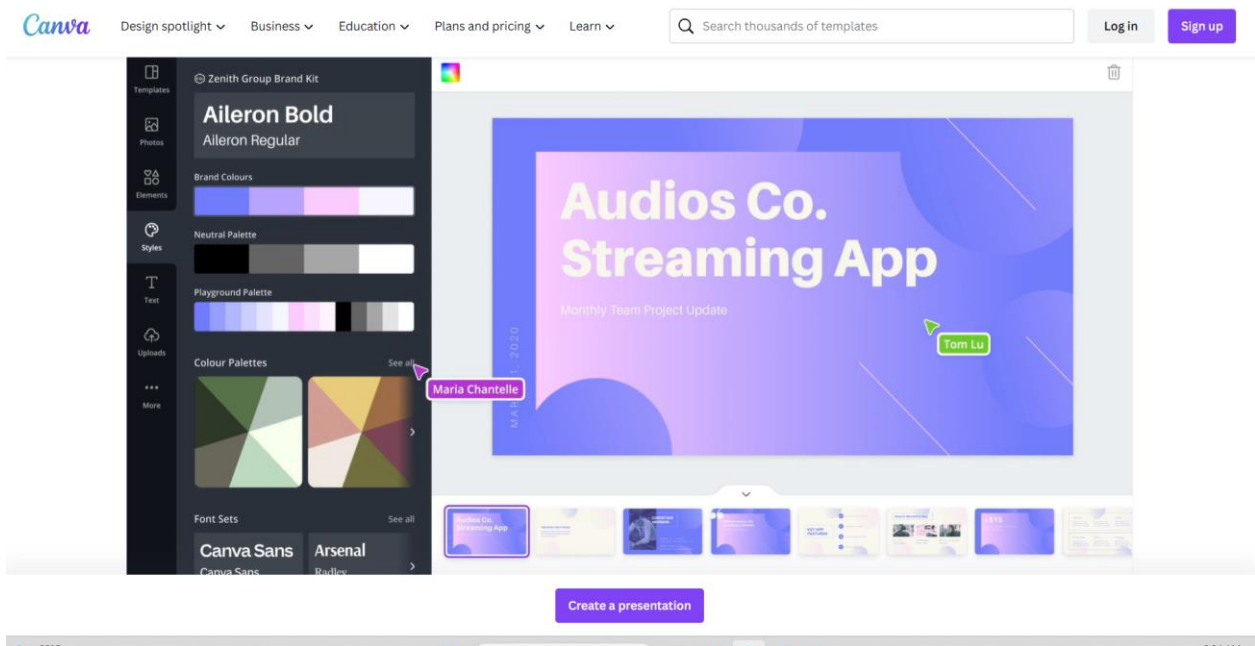
application, worksheets can be created for various subjects, both for knowledge review and for reinforcing and deepening the taught material. This way, students can solve exercises through interactive and enjoyable games.



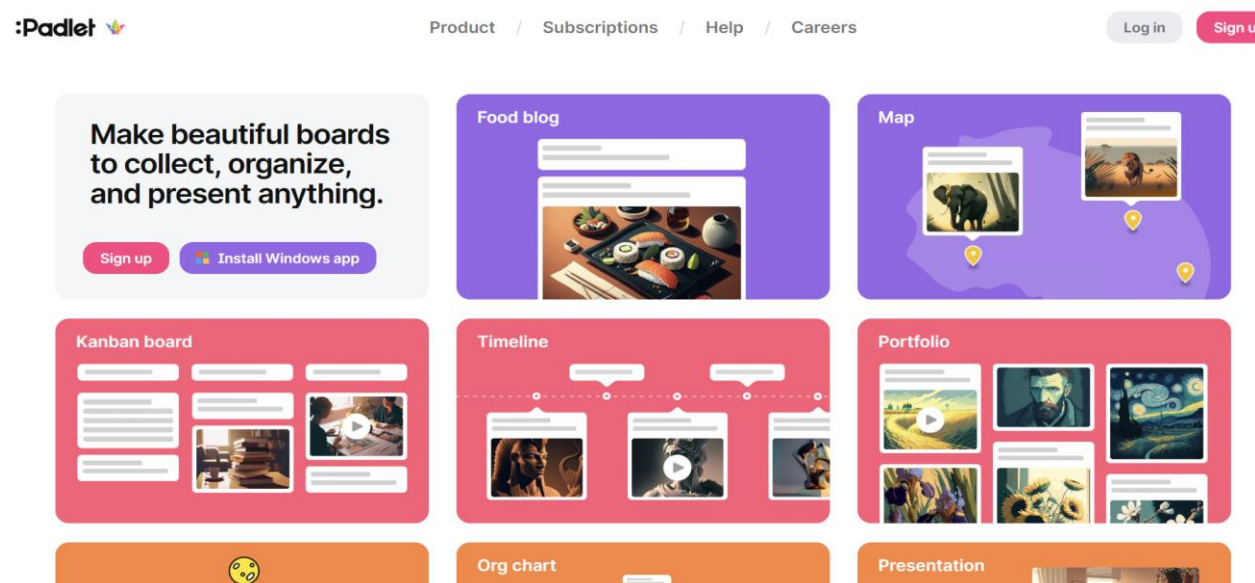
- With the **Word Art** application (<https://wordart.com/>), drawings can be created using words, forming a 'word cloud.' This can represent a text or a sequence of words, serving as a tool for content analysis or for creating a graphical representation of content. The advantage of the Word Art application is that it can create various forms of word clouds.



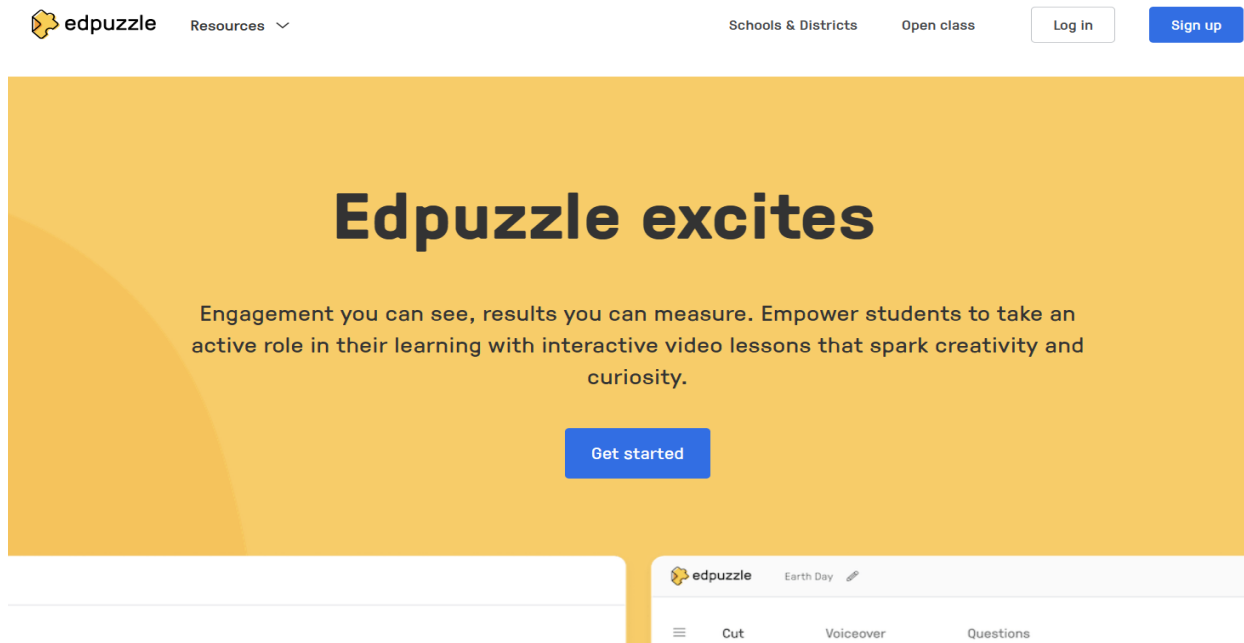
- **Canva** (https://www.canva.com/ro_ro/) is a useful digital resource for creating teaching materials that can contribute to instructional and educational activities. In this application, materials for all subjects in primary education can be created, such as presentations, schedules, posters, and greetings. Additionally, students can receive various tasks that they can complete through the application, individually, in groups, or in pairs.



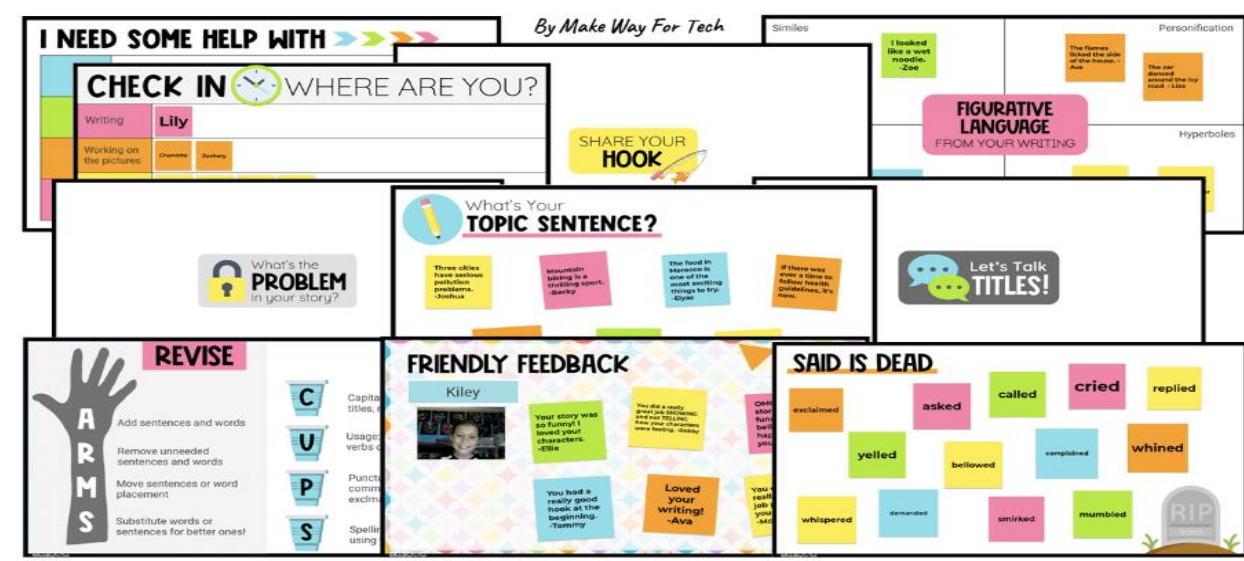
- Another interactive and useful application for online teaching is **Padlet** (<https://padlet.com/>), through which virtual sticky note boards, images, links, and documents can be created. Students can also contribute, making it a collaborative application. It can be used for brainstorming sessions or to create a class journal.



- **EdPuzzle** (<https://edpuzzle.com/>) is a platform that encourages interactive lessons and student interaction. The platform allows teachers to upload various videos related to the content to be taught, guiding the lesson through them. Questions can be added throughout the video to promote students' interaction with the content.



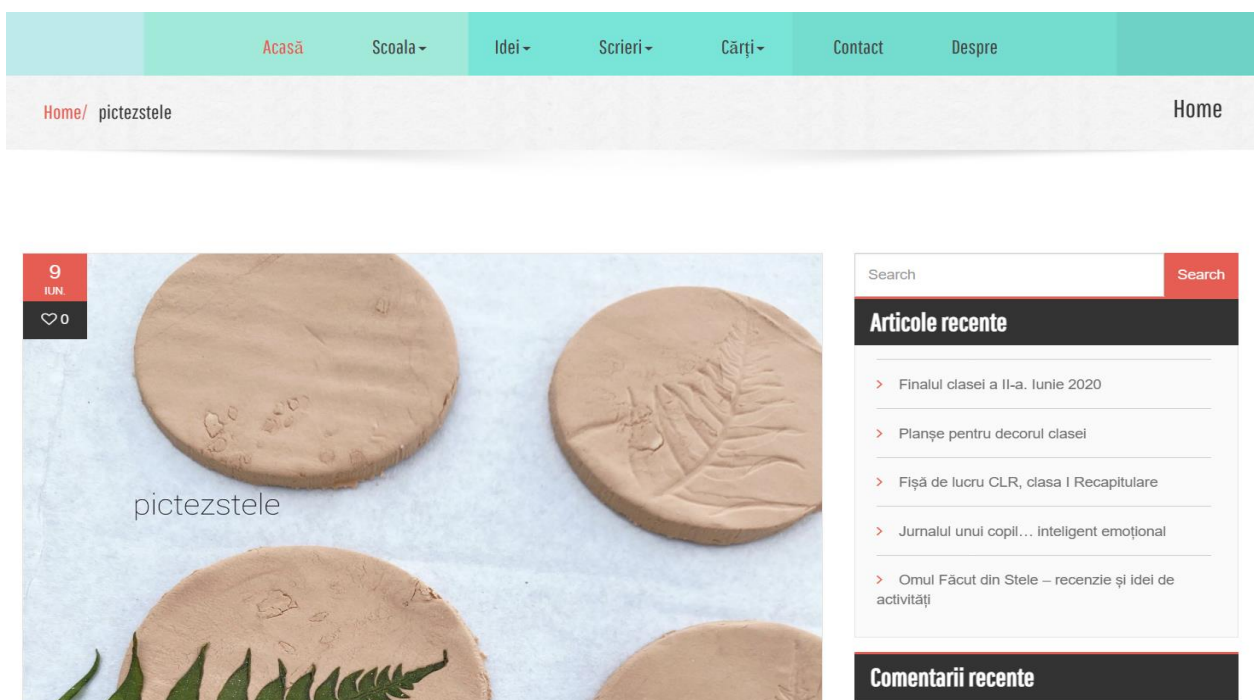
- **Google Jamboard** (https://edu.google.com/intl/ALL_us/jamboard/) is a platform that offers an interactive board, allowing collaborative completion of main ideas, notes, keywords, and texts. This platform can be used for subjects like Communication in the Romanian language, mathematics, history, geography, and natural sciences. It can be used in all stages of the lesson, from capturing attention to guiding learning and reinforcing content.



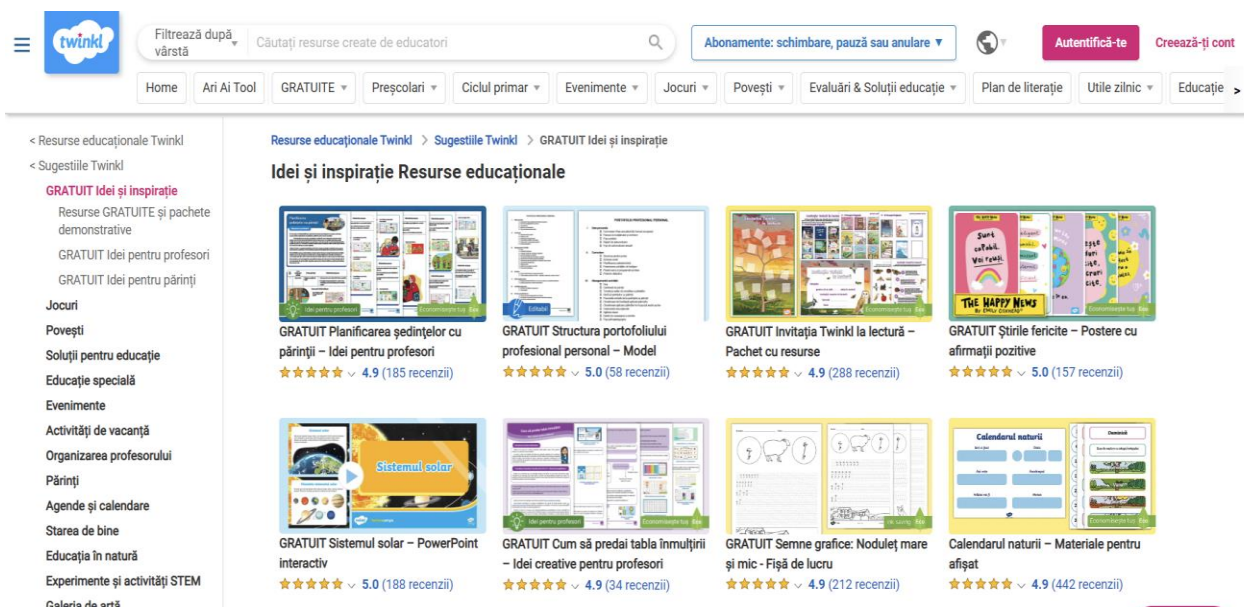
- **EmaLaȘcoala.ro** (<https://emalascoala.ro/>) is a website coordinated by an experienced teacher who is eager to share examples of good practices for instructional and educational activities. The site includes a variety of creative activity ideas for all study subjects, from tutorials for practical work to interactive math exercises. These are useful for guiding learning in subjects like Romanian language, mathematics, and environmental exploration.



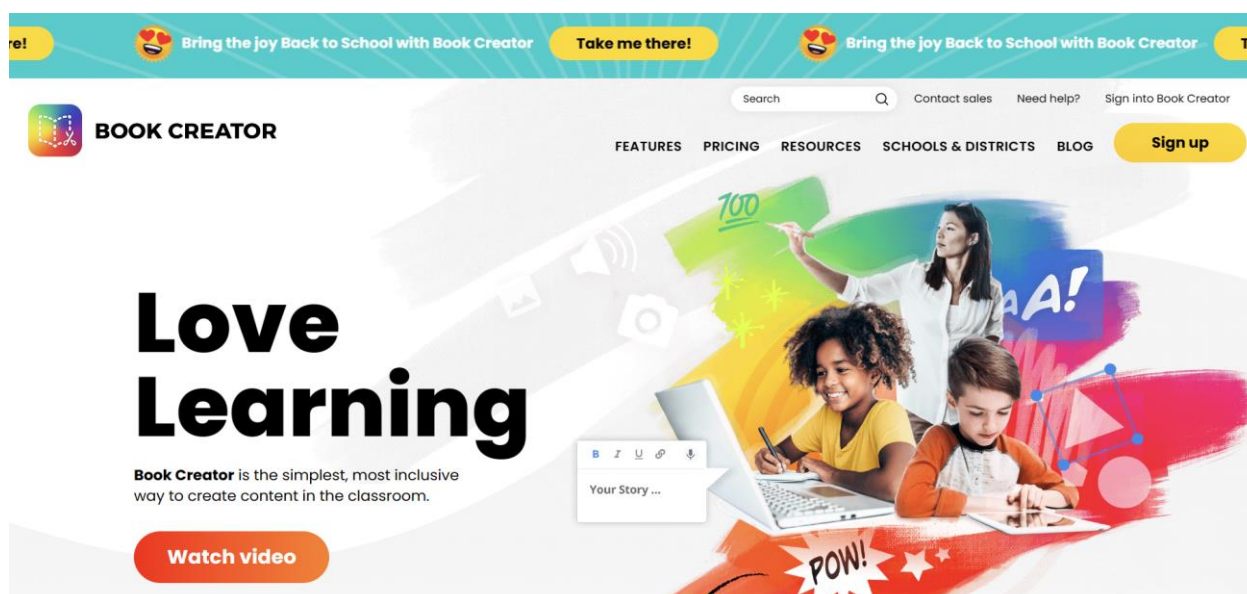
- **Pictesztele.ro** (<http://www.pictesztele.ro/>) is a website that presents activities and experiences from primary education teaching hours. Teaching staff can find inspiration and interesting ideas that they can apply and adapt to their own class. The website offers a variety of attractive materials and worksheets that can be downloaded for free and used in the classroom.



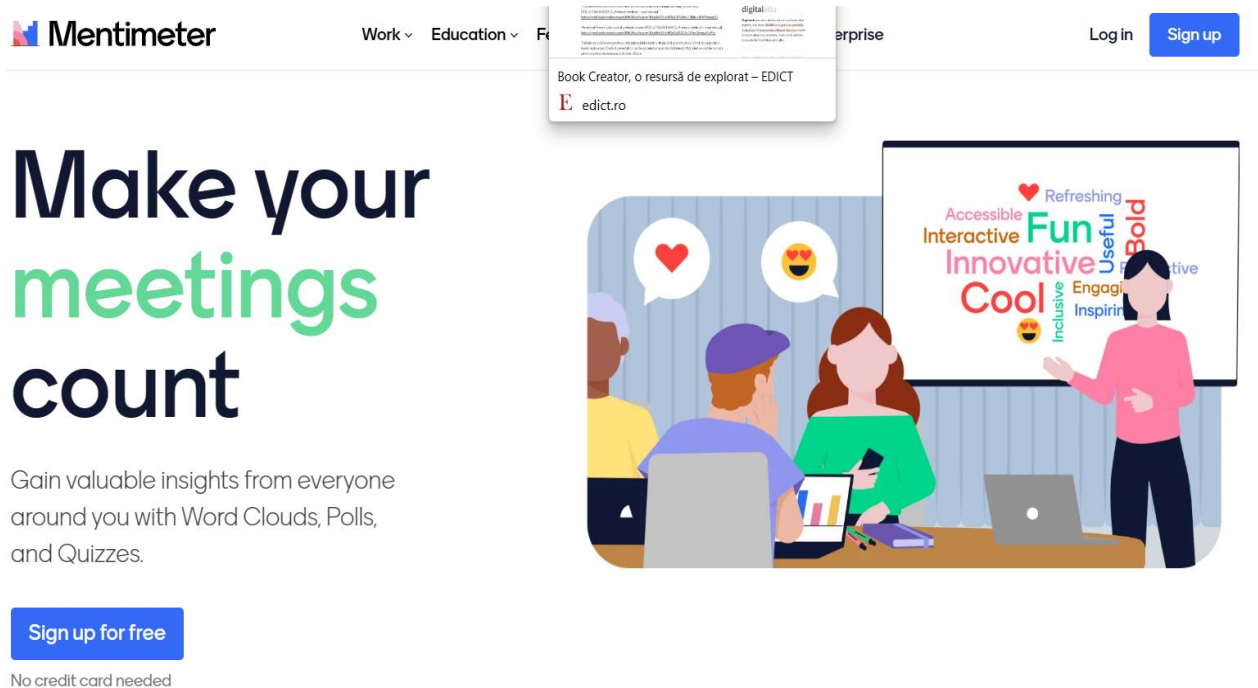
- **Twinkl** (<https://www.twinkl.ro/>) is a website that offers a variety of educational resources that can be successfully used in the classroom, including games, stories, interactive worksheets, PowerPoint presentations, and posters. The numerous resources for all subjects can be downloaded through an accessible subscription. They are engaging for students and can be used for capturing attention, guiding learning, providing feedback, or ensuring retention.



- **Book Creator** (<https://bookcreator.com/>) is an attractive and creative application that allows users to create their own stories in the form of digital books on various themes. The application contributes to students' engagement in activities, offering them the possibility to express their creativity and emotions. The created materials can be saved and presented in front of the class.

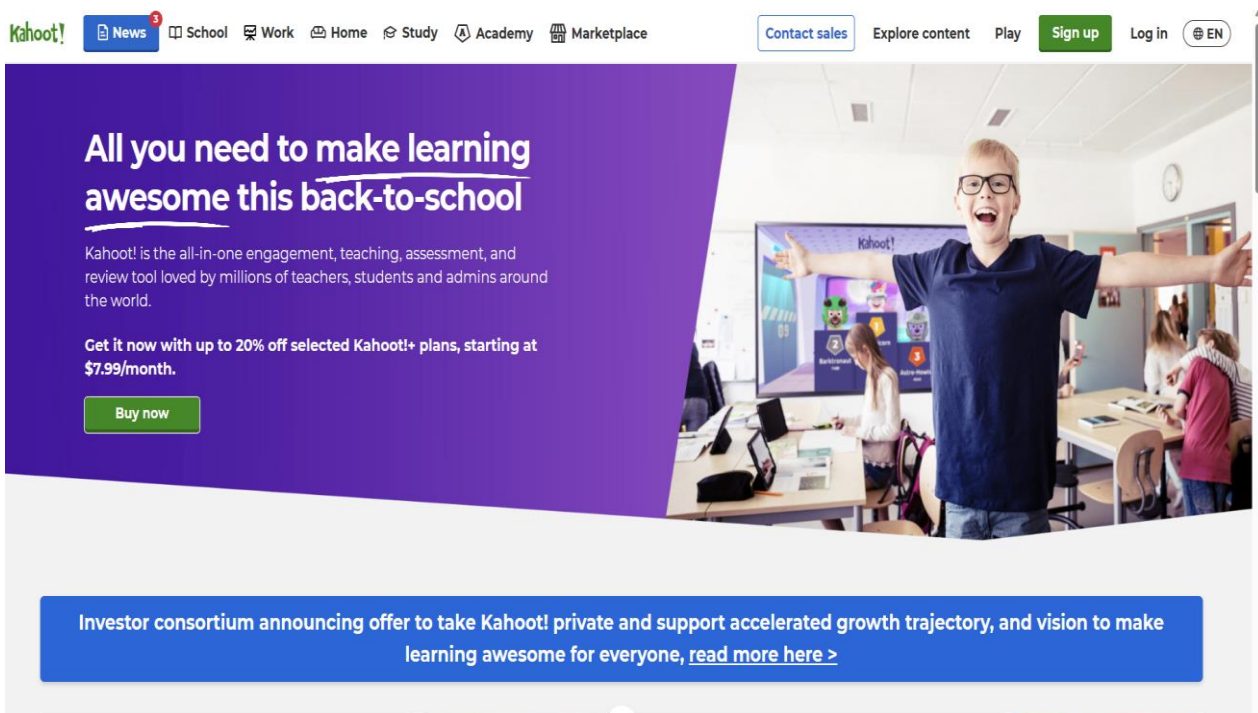


- **Mentimeter** (<https://www.mentimeter.com/>) is a useful application for creating interactive presentations with opinion polls, which can be used when introducing a new theme or for feedback. Additionally, this application can check students' attention to the taught lesson.



The image shows the top section of the Mentimeter website. At the top is a navigation bar with the Mentimeter logo, links for 'Work', 'Education', and 'Enterprise', and buttons for 'Log in' and 'Sign up'. Below the navigation bar is a large banner with the headline 'Make your meetings count' in large, bold letters. To the right of the text is an illustration of a person presenting to a group of people, with a word cloud on the screen behind them. The word cloud contains words like 'Refreshing', 'Fun', 'Innovative', 'Cool', 'Engaging', 'Inspirational', 'Useful', 'Bold', 'Interactive', and 'Accessible'. Below the headline, there is a sub-headline: 'Gain valuable insights from everyone around you with Word Clouds, Polls, and Quizzes.' At the bottom of the banner is a blue button that says 'Sign up for free' and a line of text below it: 'No credit card needed'.

- **Kahoot!** (<https://kahoot.com/>) is an engaging application that can be used during knowledge review or feedback stages by creating interactive quizzes that students need to answer within a limited time.



The image shows the top section of the Kahoot! website. At the top is a navigation bar with the Kahoot! logo, links for 'News', 'School', 'Work', 'Home', 'Study', 'Academy', and 'Marketplace', and buttons for 'Contact sales', 'Explore content', 'Play', 'Sign up', 'Log in', and a language selector 'EN'. Below the navigation bar is a large banner with a purple background on the left and a photo of a student in a classroom on the right. The purple section contains the headline 'All you need to make learning awesome this back-to-school' in large, bold letters. Below the headline is a sub-headline: 'Kahoot! is the all-in-one engagement, teaching, assessment, and review tool loved by millions of teachers, students and admins around the world.' Below that is a line of text: 'Get it now with up to 20% off selected Kahoot!+ plans, starting at \$7.99/month.' At the bottom of the purple section is a green button that says 'Buy now'. The photo on the right shows a student in a classroom, standing with arms outstretched, with a Kahoot! quiz screen visible in the background. Below the banner is a blue bar with white text: 'Investor consortium announcing offer to take Kahoot! private and support accelerated growth trajectory, and vision to make learning awesome for everyone, [read more here >](#)'.

References

Webography

<https://wordwall.net/ro>, accessed on 14.08.2023.
www.manuale.edu.ro, accessed on 14.08.2023.
<https://clasamea.eu/>, accessed on 14.08.2023.
<https://learningapps.org>, accessed on 14.08.2023.
<https://wordart.com>, accessed on 14.08.2023.
https://www.canva.com/ro_ro, accessed on 14.08.2023.
<https://padlet.com>, accessed on 15.08.2023.
<https://edpuzzle.com/>, accessed on 15.08.2023.
https://edu.google.com/intl/ALL_us/jamboard/, accessed on 15.08.2023.
<https://emalascoala.ro/>, accessed on 15.08.2023.
<http://www.pictezstele.ro/>, accessed on 15.08.2023.
<https://www.twinkl.ro/>, accessed on 15.08.2023.
<https://bookcreator.com/>, accessed on 15.08.2023.
<https://www.mentimeter.com/>, accessed on 16.08.2023.
<https://kahoot.com/>, accessed on 16.08.2023.

ASSESSMENT OF LEARNING OUTCOMES USING ONLINE PLATFORMS

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Abstract: The pandemic period accelerated the process of integrating new technologies into teaching-learning-evaluation activities. Many teachers have learned on the go to use and integrate different platforms in the teaching activity. In this paper, we present seven platforms that can be used in the evaluation of learning outcomes, describing the facilities offered by them.

Assessment is based on national assessment standards, focuses on skills and provides objective feedback to students. We can use many online applications/platforms to evaluate students, in this paper we will present seven of the most used during our classes.

Before using a certain application, we must determine what we want to evaluate and which are the most suitable applications to obtain the desired result.

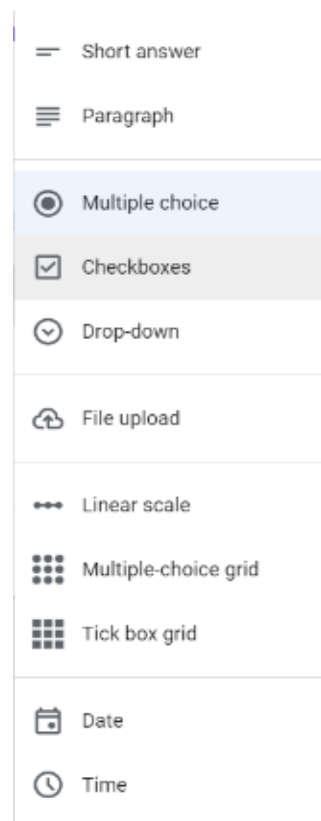
1. **Google Forms** – the application can be used for continuous/summative assessment. Google Forms allows the collection of information using forms (questionnaires). The questions of the form can have as an answer one of the options in the image below.

A score is given for each question, and the correct answer is specified, we can automatically assign the granted points to the question with the student's name. In the open-answer questions, the teacher will have to give each student a score manually, and when the other types of questions are used, the score is automatically given to the student if they answer correctly.

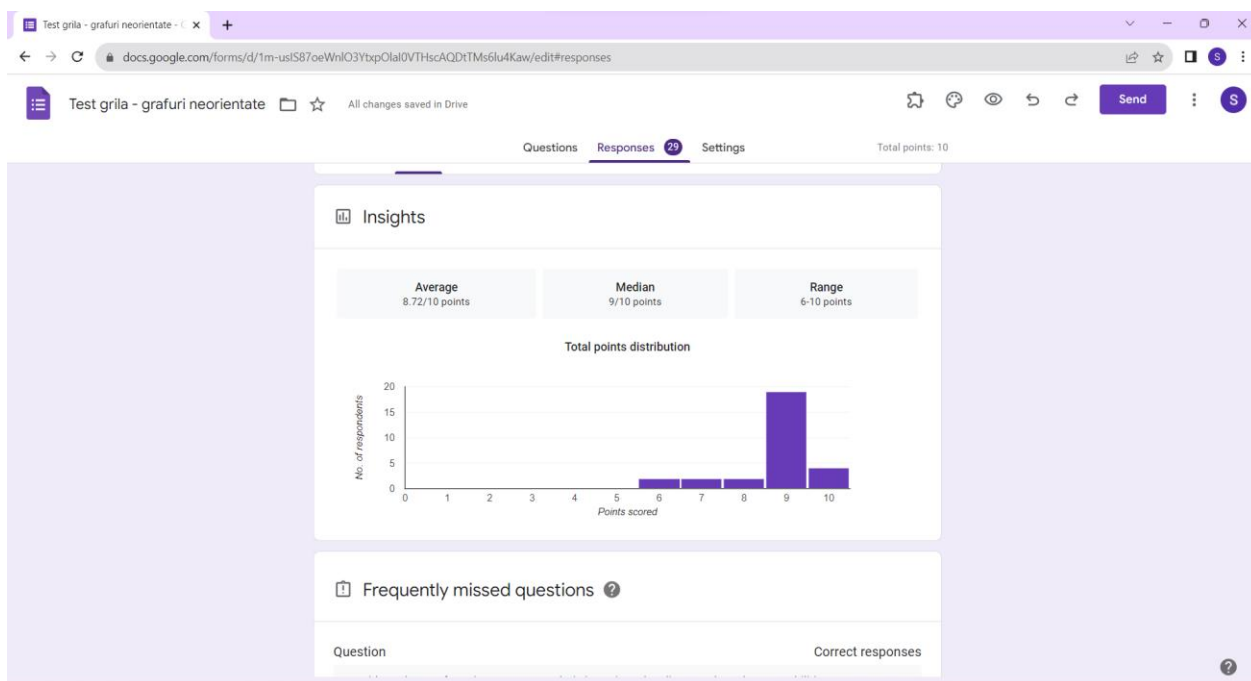
It is advisable to change the settings of the form as follows:

- the questions in the test should be in random order (Presentation -> Shuffle question order);
- in case of questions with several answer options, activate "Shuffle option order" so that the answer options are in random order;
- feedback to be sent to students at the end of the lesson and not at the time of sending the form, thus, classmates cannot find out what the correct answers are. After all the students have sent the form, we can send them the feedback to be able to see the questions they answered correctly/incorrectly, and the score awarded to each one.

At the end of the test, we can analyse together with our students the statistics created by Google. We can also choose to create an excel file with the students' answers.



A vertical menu of question types in Google Forms. The options are: Short answer, Paragraph, Multiple choice (selected with a radio button), Checkboxes (checked with a checkbox), Drop-down, File upload, Linear scale, Multiple-choice grid, Tick box grid, Date, and Time.

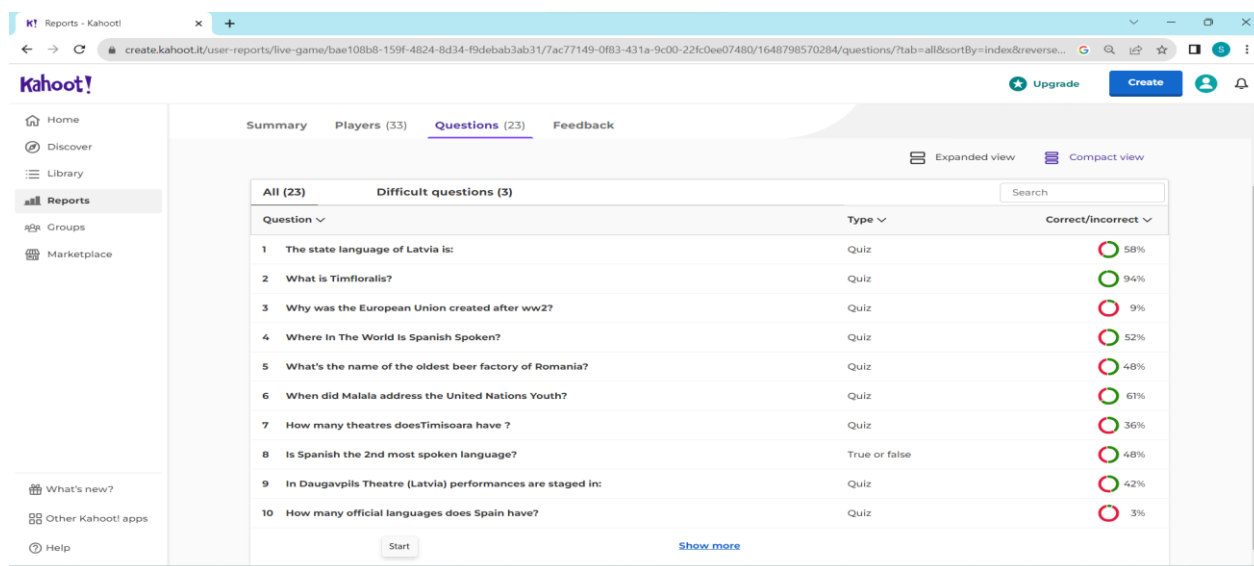


The same form can be applied to students from different classes or in different school years.

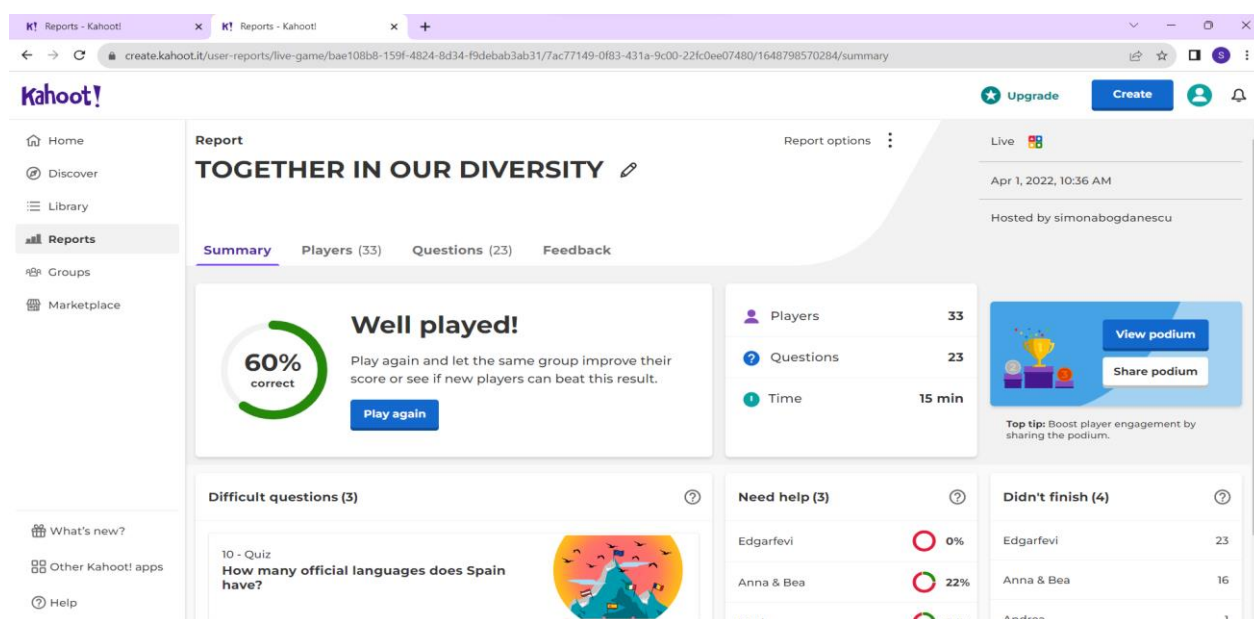
2. For a continuous assessment in which we want to measure the students' response speed, we can use *Kahoot!* to create online tests. In the free version, we cannot have all the facilities offered by this application, but a monthly/annual subscription can be paid to use all its resources.

The advantage of this application is that tests are perceived by students as a game, they do not feel as if they are being evaluated.

<https://kahoot.com/>

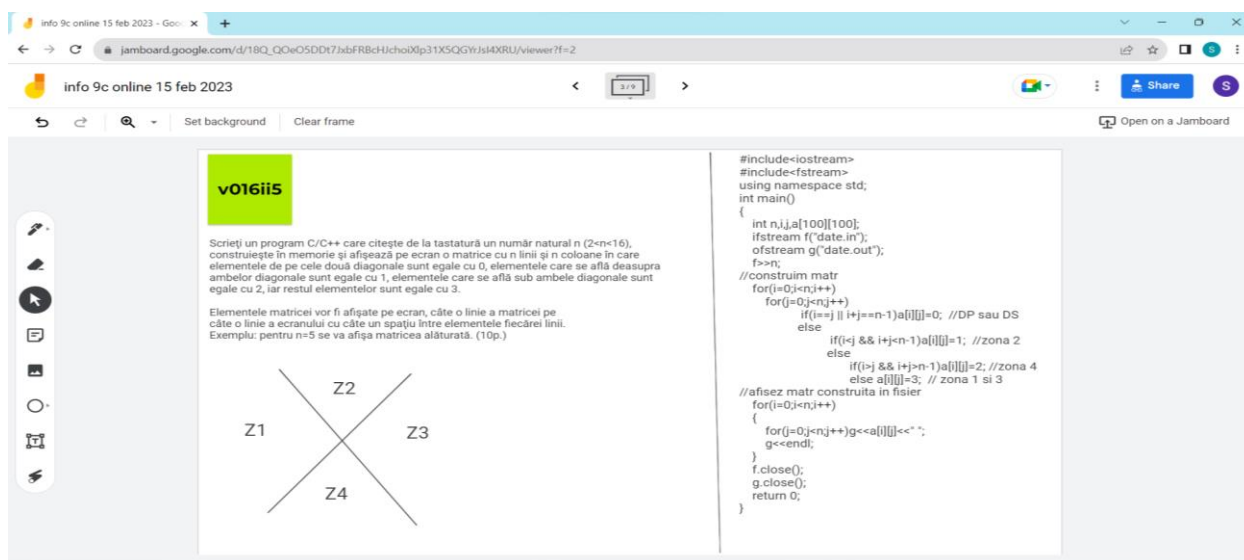


When the test is completed, we will also have automatically created statistics.



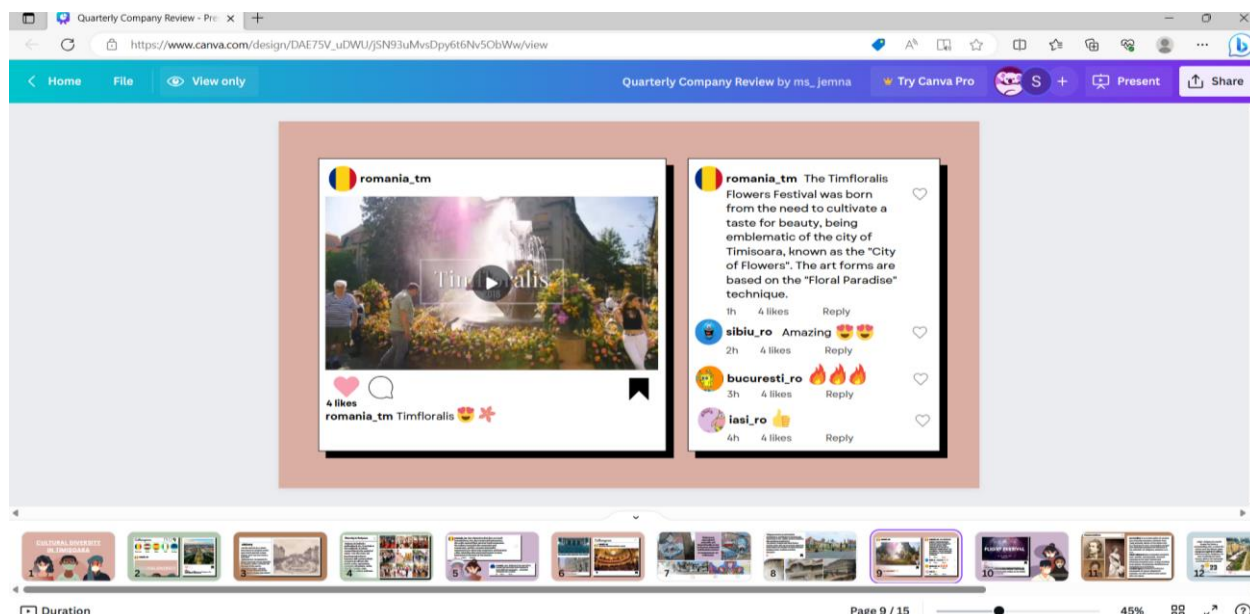
3. **Jamboard** – is a G Suite digital whiteboard, we can use it in continuous assessment when solving exercises/problems. Students are given the right to edit when sharing and thus can solve the tasks while the digital board is shared on the screen in Google Meet.

<https://jamboard.google.com/>



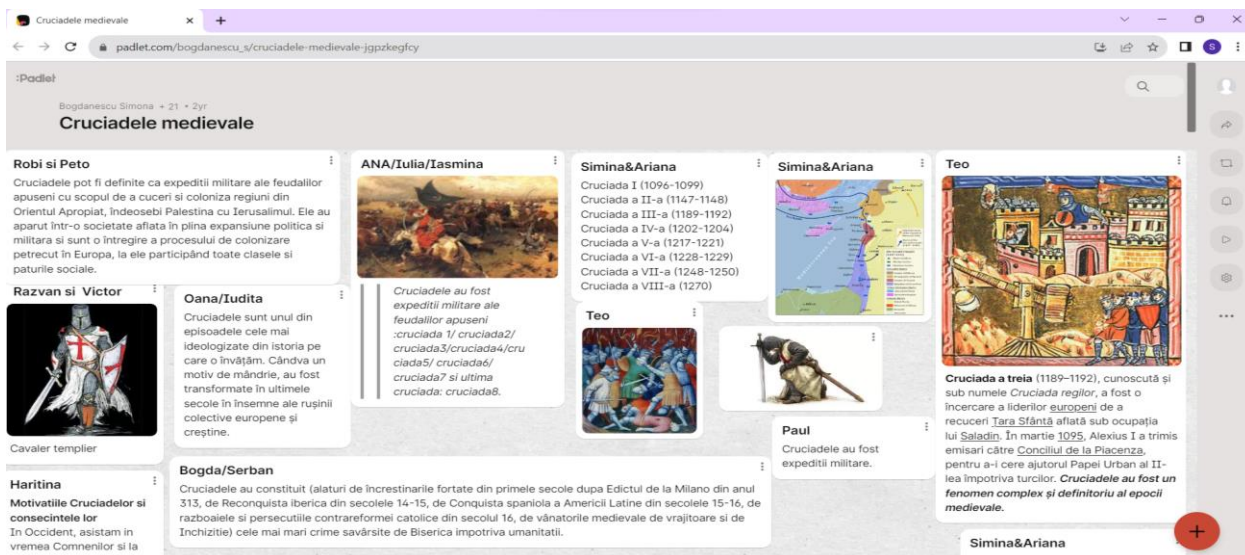
4. To create projects (presentations, documents, photo collages, videos, etc.), students can work collaboratively in **Canva**. It is very easy to use and contains many templates that make the design very attractive.

<https://www.canva.com/>



5. **Padlet** - is an online application that allows students to publish texts, images, video clips, links on a virtual wall. In evaluation, this application can be used for students to work collaboratively on projects or to express their point of view on a given topic.

<https://padlet.com/>



Advantages of using online platforms:

- teachers give students immediate feedback;
- students and teachers develop their digital skills;
- students can show their creativity in designing projects;
- once created, a form can be applied to several students (different classes, different school years);
- the collection of statistics regarding the degree of assimilation of students' knowledge.

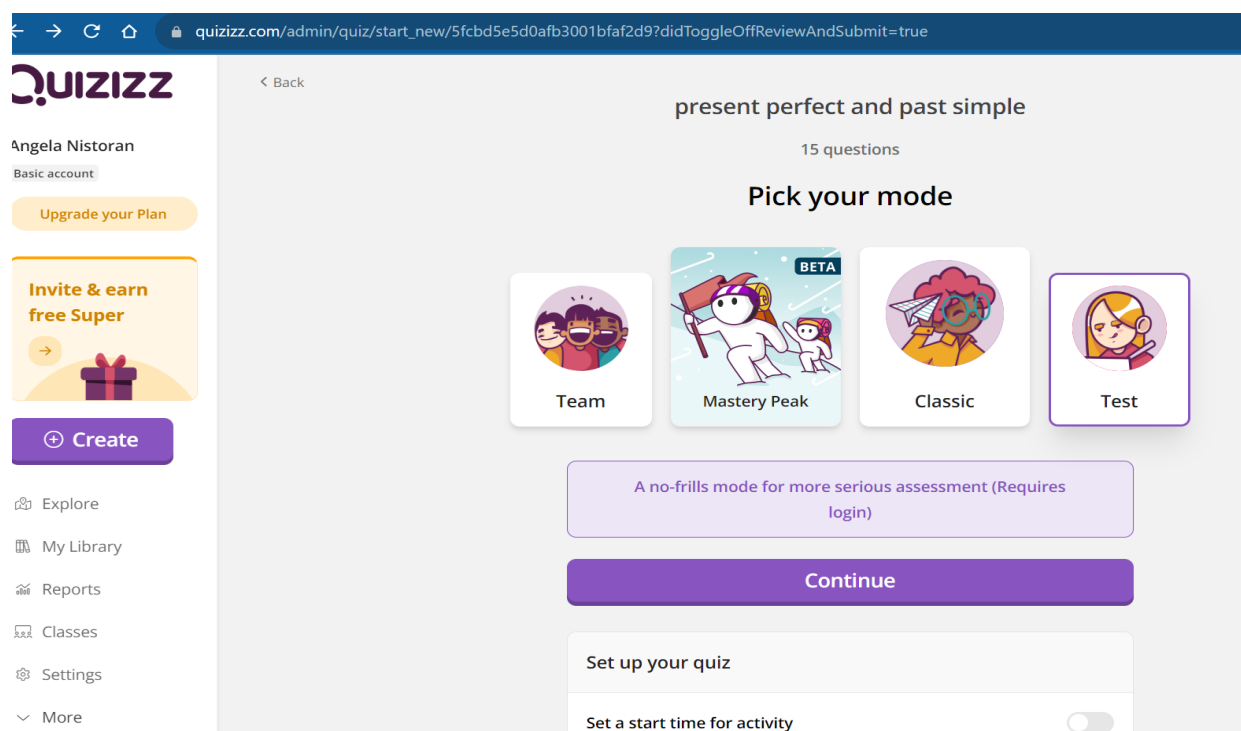
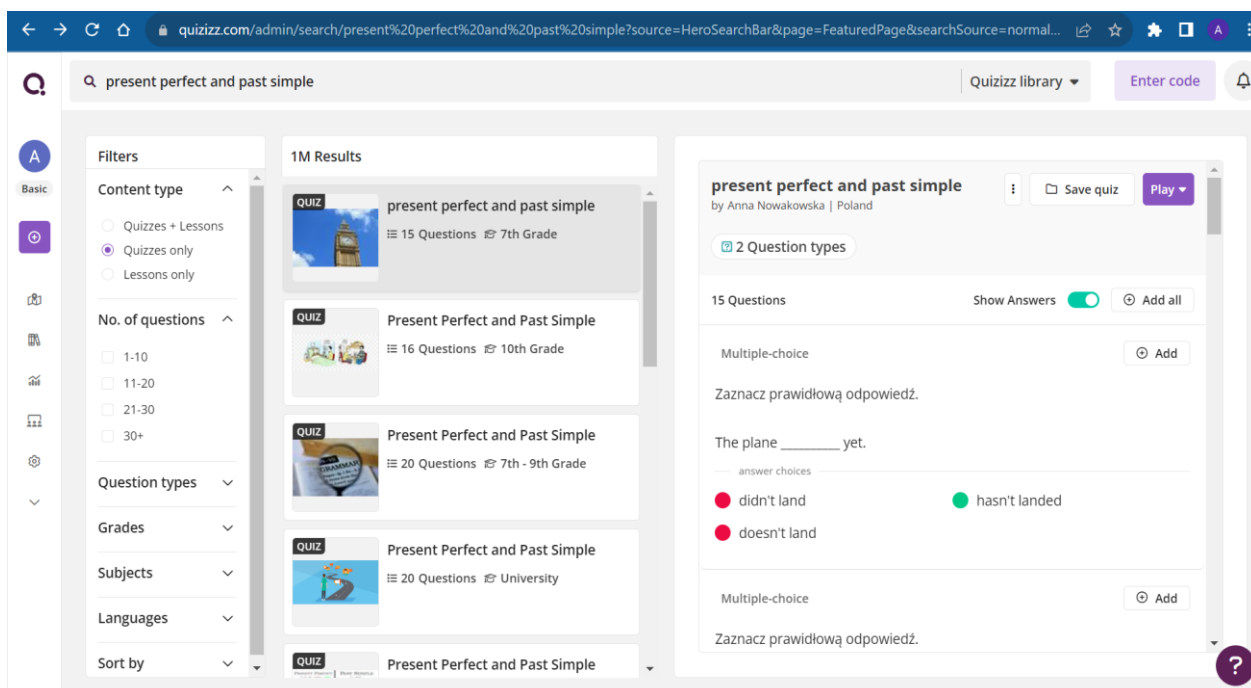
Disadvantages of using online platforms:

- students' temptation to copy the answers from different sources;
- lack of high-performance technological resources and optimal network connections may lead to disruptions during tests.

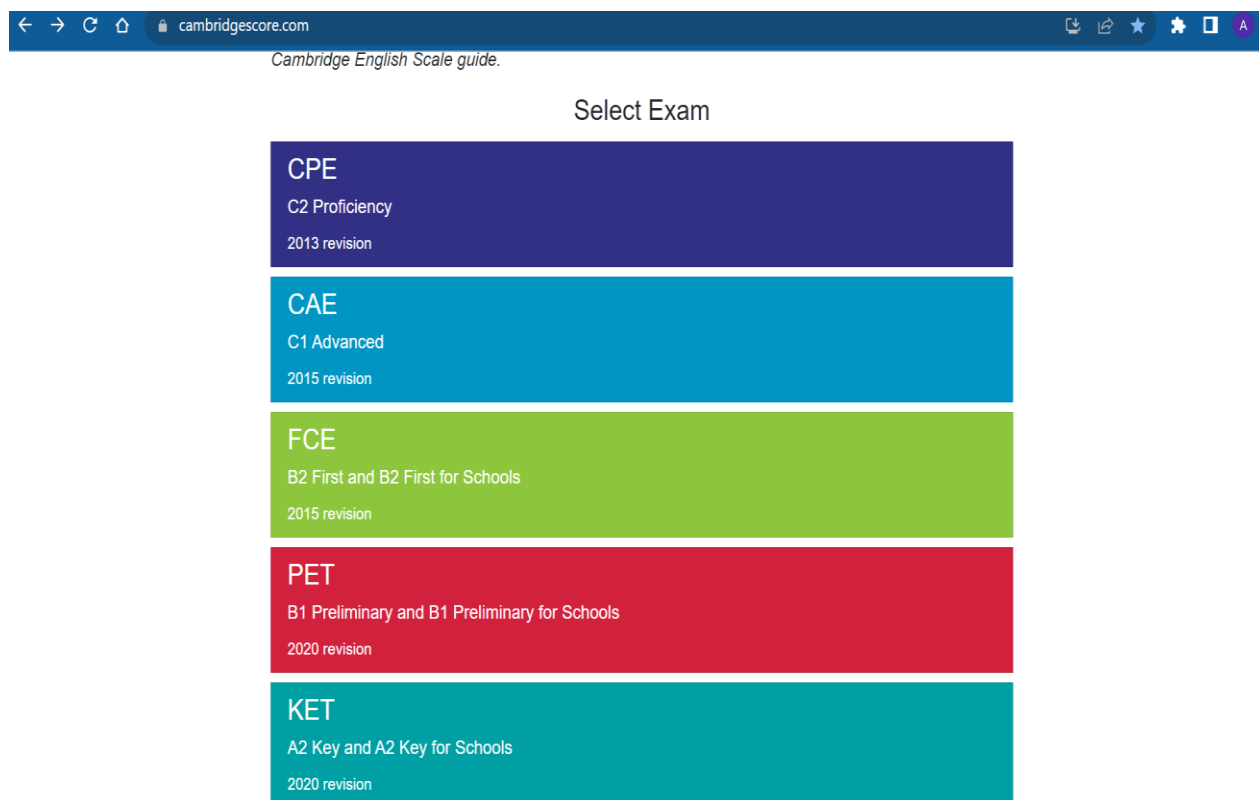
Recommendations:

- the tests should contain questions/tasks that require thinking/reasoning so that the result of the evaluation cannot be doubted;
- make sure students are familiar with using the applications in which the tests are given.

6. **Quizizz** - The Quizizz application <https://quizizz.com/> is a free formative assessment tool used in an engaging and fun way that every teacher can integrate into the teaching-assessment system. The student goes through the material offered either in the form of a presentation combined with interactive questions, or just an interactive test, going through them at his own pace. One of the advantages of using this application is the possibility of integrating the exercises done in Google Classroom (<https://classroom.google.com/>)

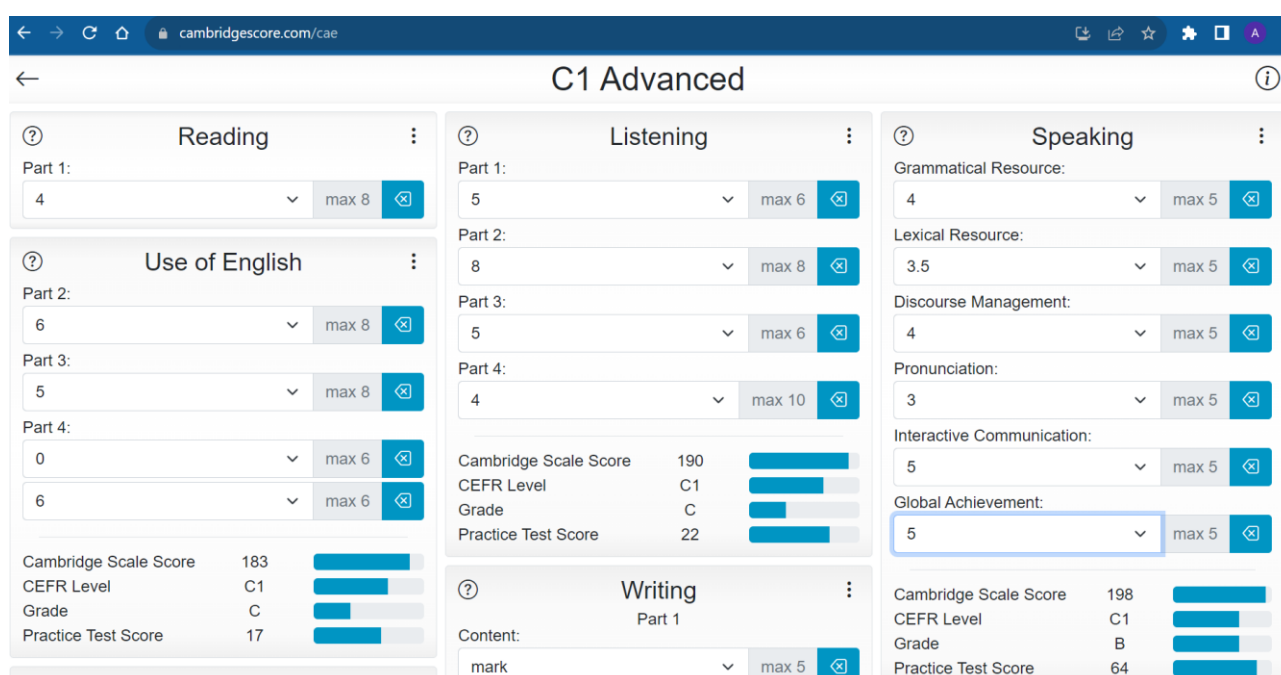


7. Cambridge Score Calculator - <https://cambridge.org/score> This platform helps students estimate the score they may receive on a Cambridge English exam. It is a useful tool which enables students to better understand how the score system for these international exams is applied and, at the same time, offer an objective insight into their level of English language.



The screenshot shows the 'Cambridge English Scale guide' website. Under the 'Select Exam' heading, there are five colored boxes representing different exams:

- CPE** (C2 Proficiency, 2013 revision) - Dark blue box
- CAE** (C1 Advanced, 2015 revision) - Light blue box
- FCE** (B2 First and B2 First for Schools, 2015 revision) - Green box
- PET** (B1 Preliminary and B1 Preliminary for Schools, 2020 revision) - Red box
- KET** (A2 Key and A2 Key for Schools, 2020 revision) - Teal box



The screenshot shows the 'C1 Advanced' calculator interface. It displays scores for four sections: Reading, Listening, Speaking, and Writing. Each section has a dropdown menu for the score and a 'max' value. Below the scores, there are progress bars and a summary table.

Section	Score	Max
Reading	4	8
Use of English	6	8
Listening	5	6
Speaking	4	5
Writing	mark	5

Summary Table:

Metric	Score	Level
Cambridge Scale Score	183	C1
CEFR Level	C1	
Grade	C	
Practice Test Score	17	

Online platforms and applications are extremely useful when it comes to delivering successful lessons. Not only do they equip teachers with modern tools to impart knowledge and test students' progress, but they also engage students during lessons because they have fun at the same time. It is the way of the future and educators should make use of them as much as possible because they improve the educational process.

References

Webography

<https://www.google.com/intl/ro/forms/about/>

<https://kahoot.com/>

<https://edu.google.com/jamboard/>

https://www.canva.com/ro_ro/

<https://padlet.com/>

<https://quizizz.com/?lng=en>

[https://quizizz.com/admin/search/prezent%20perfect%20and%20past%20simple?source=MainHeader&page=FeaturedPage&searchSource=normal&contentTypes=\[%22quiz%22,%22presentation%22\]](https://quizizz.com/admin/search/prezent%20perfect%20and%20past%20simple?source=MainHeader&page=FeaturedPage&searchSource=normal&contentTypes=[%22quiz%22,%22presentation%22])

<https://cambridgescore.com/>

<https://cambridgescore.com/cae>

MADE IN ROMANIA: REMEDIAL SUMMER SCHOOL A.E.R. PERSONAL REFLECTIONS

MARIANA ANGHEL

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ABSTRACT: Online school has had, without a doubt, its advantages in digital literacy for all the beneficiary of education: students, teachers and last but not least, parents and tutors. We were witnesses of a great development of digital instruments in teaching, and here I am especially talking about primary school education. Primary school teachers found great use in e-learning platforms and resources, such as: Kinderpedia, Moodle, Edmodo, Scuola 325, MozzaWEb, Worldwall, KhanAcademy, Canvas, Quizizz, Learning Apps, Kahoot, WordArt, Twinkle, Livresq, Nearpod and so on. There were many times students who, due to various reasons, rarely attended online classes and sometimes didn't attend at all. A.E.R. Remedial School is an exclusively Romanian product, an online training program intended for Romanian students from grades I-VIII, with the priority goal of recovering consistent learning gaps and preventing school dropout of students with learning difficulties or discouraged by the lack of participation in online school. The Kinderpedia platform also keeps parents connected, keeping them updated on their children's school activity and progress. This real-time communication eliminates parental anxiety and facilitates a convivial atmosphere that moves learning forward.

Online school has had, without a doubt, its advantages in digital literacy for all the beneficiary of education: students, teachers and last but not least, parents and tutors. Up until 2020, those who wanted more training in the IT field took up special classes or courses in school and/or university; in the context of a fast approaching and devastating pandemic, all of us, including students, teachers, parents and other parties pertaining to education had to adapt on the way.

Most of our Romanian students from urban areas were already accustomed to social media and were eager to learn even more with the help of a smartphone, tablet, PC, and so the transition to online teaching was done with fast and firm steps. Their teachers adapted in time and in different ways, considering their age, their previous contact with

the digital world and their openness to updating old teaching techniques and even discovering new ones. Initially, almost all teachers in pre-university education used to some extent either the school platform or Google extensions in teaching. Subsequently, I noticed, among online social groups of primary school teachers, more and more teachers sharing their experience teaching using the help of online tools. In time, they went from using Google Classroom to other platforms and educational apps, depending on the class subject, its objectives and the skills that it is meant to teach.

We were witnesses of a great development of digital instruments in teaching, and here I am especially talking about primary school education. Few of the primary school teachers had taken part in digital instruction courses and even fewer had daily access to modern IT devices that connect to a PC/laptop, such as document cameras, smart whiteboards, graphic tablets and eBooks, smart projection systems. Primary school teachers found great use in e-learning platforms and resources, such as: Kinderpedia, Moodle, Edmodo, Scuola 325, MozzaWEb, Worldwall, KhanAcademy, Canvas, Quizizz, Learning Apps, Kahoot, WordArt, Twinkle, Livresq, Nearpod and so on. In the process of integrating technology in learning, teachers also formed communities and reached out to each other, exchanging ideas and offering help to those who have less experience in the digital world. We are witnessing a special development of the use of resources and digital platforms in the world of education, digital resources that offer new valuable information and perspective for dedicated teachers, and a greater help and sense of community for beginner teachers. For now, I will mention two of such Romanian platforms: www.didactic.ro and www.educared.ro.

The introduction and instruction of teachers and students in Romanian schools in the use of online instruments and online teaching was anything but homogenous. There were many times students who, due to various reasons, rarely attended online classes and sometimes didn't attend at all. Most of the time, it was from the lack of equipment or knowledge regarding the use of electronic devices. According to AER Summer School's web page¹, it has been found that 25% of Romanian students do not have access to online school or any other form of online education. 28% of students have missed 24 out of 34 weeks in the school year, a worrying statistic that has alarmed the teaching staff. In the same year that online school was used as the only way to education, 2020-2021, at least 30% of Romanian students coming from disadvantaged communities did not show up for the National Evaluation Exam. In the aftermath of these worrying events „The Ministry

¹ <https://www.aer.school/>

of Education launched a program of remedial classes with European funds dedicated to students whose educational process was seriously affected or blocked during the online school period”²

A.E.R. Remedial School is an exclusively Romanian product, an online training program intended for Romanian students from grades I-VIII, with the priority goal of recovering consistent learning gaps and preventing school dropout of students with learning difficulties or discouraged by the lack of participation in online school. This school is a large project carried out by the Alliance for Remedial Education, a non-profit initiative of a group of entities that act in the school and educational environment that want to support in a real and practical way the educational level of students in Romania, offering activities of training, learning and assessment. The project partners are the BRIO, KINDERPEDIA, MAGIC SCHOOL and LIVRESQ platforms. In support of the A. E. R. Summer Remedial School came an initiative group without legal personality, established in February 2021, namely, Magic School. Created at the initiative of a Romanian history teacher, Marcel Bartic, Magic School brings together over a hundred teachers from all over the country, with the aim of voluntarily offering remedial education classes to children in vulnerable environments. Other NGOs that offered their resources and helped children through online lessons consisting in revision, reinforcement and assessment are *MagiCamp*, *Ajungem Mari*, *Asociația Hercules*, *Asociația Ana și Copiii*.

As I stated before, this remedial education program is an exclusively Romanian one, financed by the Ministry of Education, through PNRR³ and other economic partners, NGOs. The A.E.R. Remedial Summer School is in its 4th edition in 2023. The courses for students take place, as the name suggests, in the summer, in the months of July and August, and offer mainly Romanian language and Mathematics lessons to primary and middle school students. Students benefit from these courses for free. Enrollment of students in the program is done by a parent or a teacher, their only obligation is to have a Gmail account, after which the administrative part of the AER Remedial School creates accounts for them on the Kinderpedia platform.

The Kinderpedia platform is connected with the Livresq platform through asynchronous lessons designed by teachers on the Livresq platform, lessons that students can complete asynchronously. The Kinderpedia platform also communicates with the BRIO platform, which provides standardized tests and monitors the school progress of students. Thus, students will be able to access the BRIO assessment tests, contributing in a real way not only to the assessment of students, but also to the development of their

² <https://www.aer.school/>

³ https://www.edu.ro/comunicat_adoptare_HG_prevenire_abandon_scolar_PNRR

digital skills. Using BRIO measurement and testing tools, students are divided into grades and testing levels. The classes are made up of students from different geographical areas of the country, with diverse learning and cultural expression needs. After the first session, when they are just getting to know their colleagues and the specifics of the online school, there is the initial online assessment through BRIO tests. After the test, the students receive the results and the correct answer options, an entire evaluation report, very useful for their parents as well. As the online lessons take place, the students get to know each other, become more active and involved, and we, as teachers, are happy to see real progress and development of these students. Classes are held twice a week, in a videoconference system on the Kinderpedia platform, where students also receive notifications, e-mail communications from their teachers regarding the schedule, course materials or feedback on classroom progress. Students are divided into grade levels and assigned teachers who teach synchronous online classes twice a week. They may receive grades, for which there is also an electronic catalog and a daily activity report, but not necessarily. At the end of the two months' summer remedial course program, all the students undergo a final testing prepared by BRIO. The final tests at the end of the program have brought to light the real progress made by our students during summer remedial school.

The Kinderpedia platform also keeps parents connected, keeping them updated on their children's school activity and progress. This real-time communication eliminates parental anxiety and facilitates a convivial atmosphere that moves learning forward. The most beautiful and spectacular part of the A.E.R. Summer School is the atmosphere created during remedial classes with the students. Through the Kinderpedia platform that connects teachers and classes of students, communication is done through quick messages and students and parents benefit from constant technical support. I would mention here the dedication and continuous involvement, especially on the technical side of programming, of Mr. Daniel Rogoz, and the effort of managing the classes and the various inherent organizational problems that arise, of Mr. Marcel Bartic. Every year, the school receives both new students and students who have been participating in these courses ever since the launch of A.E.R. School. There are also students who, in the name of continuity, keep in touch with the same teachers and even participate in their courses in the following year. Many students and parents keep surprising us with their positive, dedicated participation in the act of learning, with their perfect attendance and with generous reviews after completing the courses.

Personal reflections

I have been participating as a volunteer teacher at A.E.R. School for two years now. In the first year of online teaching, during the 2nd semester of the 2019/2020 school year, I turned to an educational platform SCUOLA 365. I discovered it while looking for teaching solutions for students who stayed at home for an indefinite period of time and it was extremely useful to me. I was very happy to discover Google and Microsoft tools incorporated in Scuola 365, which allowed me to use it successfully not only in the “consecrated” subjects, considered basic, but also in Science, Arts, Personal Development and Music. Moreover, that Italian educational platform also had an online library and access to scientific articles, without advertisements or commercials being allowed. The children were very curious and assertive; aside from having to learn to upload their assignments in whatever format was easier for them at the time, even in their free time, they would share with each other little tricks they learned while exploring the platform. They were very eager to receive feedback from the assignments directly at home, on their devices. In a way, both my students and I discovered together, for the first time, the facilities of an educational platform.

In the following school year, for continuity and unity reasons in the instructional educational process at the school level, it was encouraged that all teachers should teach all using the same platform. Thus, together with all the teaching staff in the school, I used Google Classroom in teaching, evaluation, grading and I kept the records of the students in the courses also through google classroom.

I worked, with small interruptions, for about 2 years using Google Classroom. The students got to know each other quickly, especially since from the 2020/2021 school year I taught to a new generation of primary school students. Being very young children that had just graduated kindergarten not long ago, I also used other applications, such as: games in Wordwall, question contests in Nearpod, tests in Learning Apps, Kahoot or Google Forms. The children had a special willingness to learn and, even though the period of online teaching had ended, I continued to teach hybrid-with the students in class and online- for my student with major disabilities, for another semester. It was a difficult, but nevertheless very rewarding experience that greatly developed my technical skills and gave me the courage to explore many useful tools in online teaching.

In the summer of 2022, I discovered an announcement online: it was a call from the AER Remedial School for teachers who would like to work with students from all over the country, during the summer vacation. I thought it was an extraordinary idea, I filled out a registration form and in 2 days I was already contacted by one of the members of

the team and I joined the teaching staff of the summer school. After an online instruction session from the team, we started working with the students in the assigned classes.

It proved to be truly a transformative experience: my class welcomed me from all over the country, students with different levels of knowledge, but with an incredible will to grow and learn. They amazed me with their determination; they all works hard, some from smartphones, some from tablets or even computers; some had their own devices, others had to borrow them in order to participate in our classes. The parents were by their side, eager to help them to connect and navigate the platform and I was happy to feel them very involved.

AER Remedial School is an unexpected gift given to Romanian students with delays, gaps and learning difficulties or at risk of dropping out. The parents were grateful for the opportunity, the children were very receptive and at the end of the courses, in September 2022, I received via Kinderpedia platform all kinds of appreciations, testimonials through which the students and parents showed their gratitude for these very efficient and free of charge courses. By the end the 2022 summer school, on an optimistic note, the school's mentors, Marcel Bartic and Daniel Rogoz, even analyzed these student testimonials and offered EMAG vouchers as a symbolic prize to the teachers.

This summer I was once again looking forward to the reopening of the summer school, especially since during the school year, three of the former students from remedial summer school kept in touch with me, writing to me about the progress they had made in class and about the competitions in which they finally had the courage to participate. This year I taught again, this time to older students, gathered in greater number than i had previously anticipated. In the summer of 2023, the students conscientiously participated in the remedial classes and, as an element of novelty, in every Romanian language class we take time to talk about books that we read, as well as memorable fragments and quotes from children's literature.

What were the assets, the strengths of the AER Summer Remedial School? I will try my best to list them:

- the use of Kinderpedia - a modern, operational, easy-to-understand, intuitive educational platform for students and teachers.
- straightforward and easy communication between teachers, students and parents. The permanent exchange of information and support materials, all these operations were done exclusively through Kinderpedia platforms.
- specialized technical assistance offered promptly to both teachers and students by a computer scientist from Kinderpedia technical support. The motto of the school

coordinators, Marcel Bartic and Daniel Rogoz, was: “for any problem, write us! We are just a click away!”

- the diverse community composed of school teachers, the opportunity to share good practices among the staff and discuss suggestions received from our students; we were all focused exclusively on new methods in online teaching, we were always looking for new digital resources.
- the availability of the BRIO tests, used in the previous year by the Ministry of Education for standardized testing at the end of the school year and now incorporated in Kinderpedia, was an unexpected help in the evaluation. BRIO tests were generated by each teacher for their class. The teacher could select the subject, the chapters from which the assessment was made and the maximum interval for completing the test. Upon test completion, the teacher sees the report and the students' results. This report and the corrections are also available online for the students' parents. Personally, I sent out lab and math tests every week and had the opportunity to solve the subjects with an increased degree of difficulty in the next hour.
- the flexible schedule for teachers, the possibility of collegial substitutes between teachers.
- the minimal amount of paperwork workload done by teachers after the class that leaves space for more energy and creative work during classes.

Teaching classes for these wonderful students, I have seen their need for revision and reinforcement of ideas and skills they learnt during the school year. With the increasing needs for consolidation came a greater number of participants in the classes, and coming to their aid each year, more teachers are volunteering to teach them. Through this initiative we've seen, perhaps more than ever, platform developers, teachers, parents and students coming together, raising awareness and supporting the education of children, separately from the public school system. Therefore, I believe that the A.E.R. Summer Remedial School in collaboration with Kinderpedia, BRIO and LIVRESQ, constitutes an excellent remedial education concept with outstanding results for Romanian students.

References

Strungă, C. (2003), *Educational Policies*, Politehnica Publishing House, Timisoara

<https://www.aer.school/>

https://www.edu.ro/comunicat_adoptare_HG_prevenire_abandon_scolar_PNRR

PREMISES OF THE ERASMUS+ PROJECT. DAP-DYSLEXIA ASSESSMENT PROTOCOL

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ABSTRACT: In this paper we present the results of a project the Erasmus + DAP- Dyslexia Assessment Protocol As part of this project, specialists from five partner institutions have developed a set of assessment tools for detecting children at risk of dyslexia, children either at preschool age or experiencing difficulties in learning to read and write.

Reading difficulties occur in more than 10% of the population, regardless of the mother tongue learned, and if the deficiencies are not diagnosed in time, they produce undesirable effects on emotional development, socio-educational integration and personality development in general. Parents and teachers are the first observers of the difficulties/problems that children experience and can take the first steps to help them. In order to act consciously in terms of constructive and specialized help, we need to be aware of the specific symptoms and characteristics of dyslexia.

Signs of dyslexia are hard to recognize before school starts, but some early clues may show that there is a problem. As the child reaches school age, the teacher may realize that there is a difficulty/deficit, which becomes apparent as the child begins to read-write. Although dyslexia have a strong impact on many pupils, it remains one of the least understood disabilities.

The key features of dyslexia are that people with this disability have problems with phonological processing, spelling and/or rapid naming. They lack reading fluency, as evidenced by slow, inaccurate or slurred oral reading. Phonological processing difficulty means the inability to decode effectively letters into compound sounds to form words. A fundamental phonological processing problem can block access to other more advanced aspects of reading, such as word identification and comprehension. Difficulties with spelling stem from an inability to write efficiently from memory the letters that make up words. In this case, an increase in the time it takes to spell words as well as spelling mistakes may be noticeable. Difficulty in rapid naming may be evident when it is increasingly difficult to retrieve quickly speech sounds and the correct letter order patterns needed to read and write effectively.

The Erasmus + DAP- Dyslexia Assessment Protocol project ran from 2019-2022 and aimed to develop a Dyslexia Assessment Protocol (DAP) - a set of assessment tools for detecting children at risk of dyslexia at pre-school age and pupils already experiencing reading/writing/learning difficulties.

The idea behind this ERASMUS + project is to help primary and pre-school teachers who are faced with possible problems in the classroom in correctly identifying pupils with learning difficulties, especially dyslexia.

The partners in this project were:

1. REZEKNE ACADEMY OF TECHNOLOGIES (RTA) – LATVIA
2. ASOCIACIA DISLEXYA (DABG) – RUSE, BULGARIA
3. KOCAELİ MİLLİ EĞİTİM MÜDÜRLÜĞÜ, İZMIT (KPDONE) – TURKEY
4. GEDON SOFT, BREMEN – GERMANY
5. LICEUL TEORETIC GRIGORE MOISIL (LTGM), TIMIȘOARA - ROMANIA

The development of the Dyslexia Assessment Protocol was preceded by a survey and by the preparation of a brief comparative analysis of the situation in partner countries with regard to early identification of dyslexia. Many aspects were taken into consideration, such as the research into practice in the field, what assessment tools are available and used at European level, and how dyslexia is addressed in the identification and support of dyslexic children, as well as a scientific justification of the structure and content of the protocol.

Based on the results and primarily based on the scientific rationale, the partners decided on the structure of the Protocol and its components. All were translated and adapted to the specificities of the partner languages.

The new dyslexia assessment protocol was used to train a group of primary school educators and teachers to use the tool and to conduct a screening (assessment) of a large number of children in their last year of kindergarten (5-6 years old) and primary school students (7-9 years old). The components of the Protocol together with its computer version (DAP Application) are available in all partner languages and in English, adapted to the specific language needs of each partner country.

The project was implemented in four stages:

Stage one - Based on the scientific rationale, the project team developed the component structures of the Evaluation Protocol, in English.

Stage two - Partners translated the DAP into national languages, making the necessary adaptations to the specific language.

Stage three - After the completion of the piloting, which involved teacher training and the screening session, the final corrections and modifications were made according to the feedback collected from the participants.

Stage four - The final version of the DAP application, accompanied by a short summary of the scientific rationale, was published in electronic format on the partners' websites and on the project's Facebook page.

The two final products of the project are the DAP application, accompanied by a user guide, and the Exercise Book. With the help of the app, children with learning disabilities or dyslexia can be identified. The Exercise Book is one of the intellectual outputs of the project. It is a teaching aid for pre-school and primary school teachers and is prepared by the project team in collaboration with the teachers who participated in the piloting. The aim is to provide teachers with a practical tool that they can use with pupils with dyslexia and other related learning difficulties to develop the skills in which they are deficient so that they can achieve better results at school.

Both the application and the collection of exercises are structured in seven chapters as follows:

Chapter I: Auditory memory exercises;

Chapter II: Exercises for visual memory;

Chapter III: Exercises for visual-spatial memory;

Chapter IV: Exercises for spatial orientation;

Chapter V: Exercises for temporal orientation;

Chapter VI: Exercises for phonological skills;

Chapter VII: Exercises for reading/decoding skills.

In order to know to use the application and how to interpret the pupils' results, an instructional guide was developed, explaining the steps you need to take when applying this protocol. The parent/ teacher needs to fill in a short questionnaire with the child's data, and then a code will be delivered for the app. At the completion of the tasks, a graph will indicate in which areas a child might be deficient.



Figure 1. DAP application- General presentation

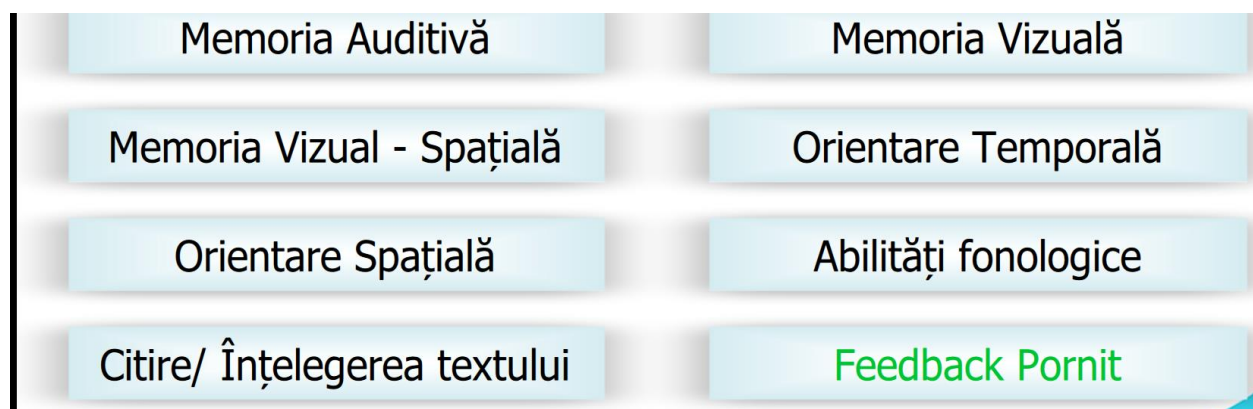


Figure 2. DAP application-Chapters Stages of use

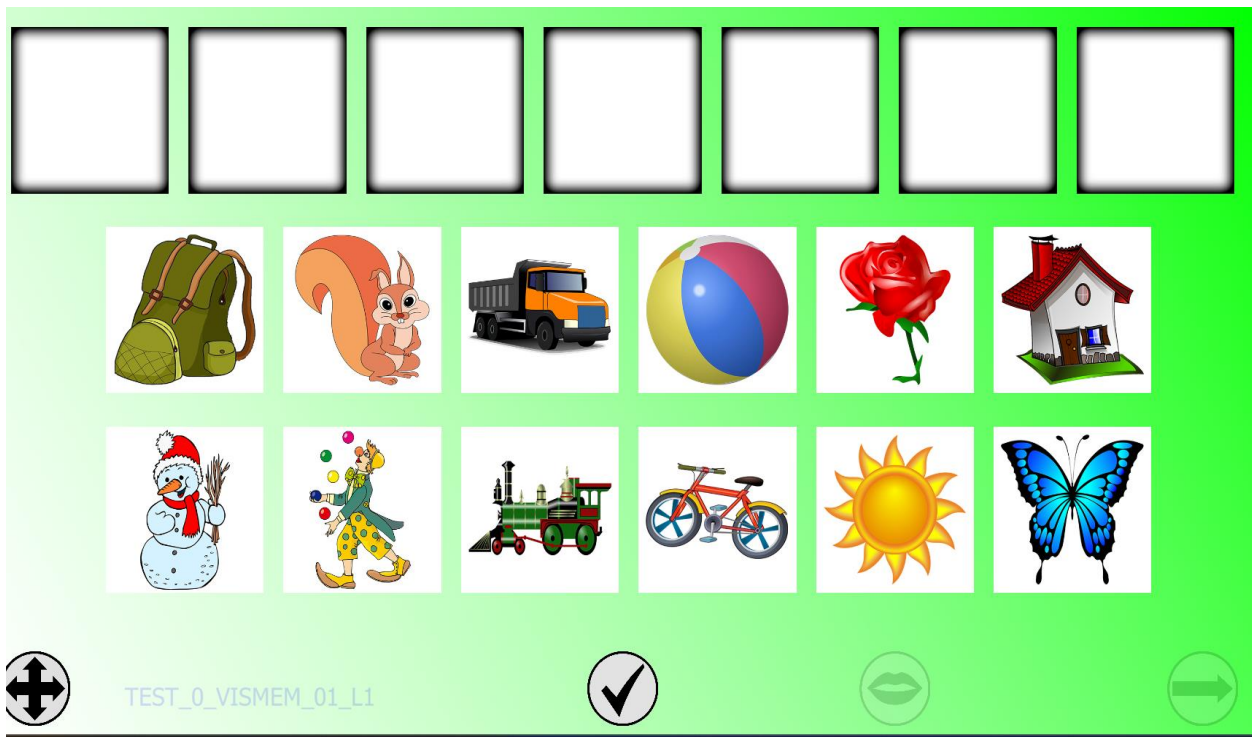


Figure 3. DAP application –Exercise

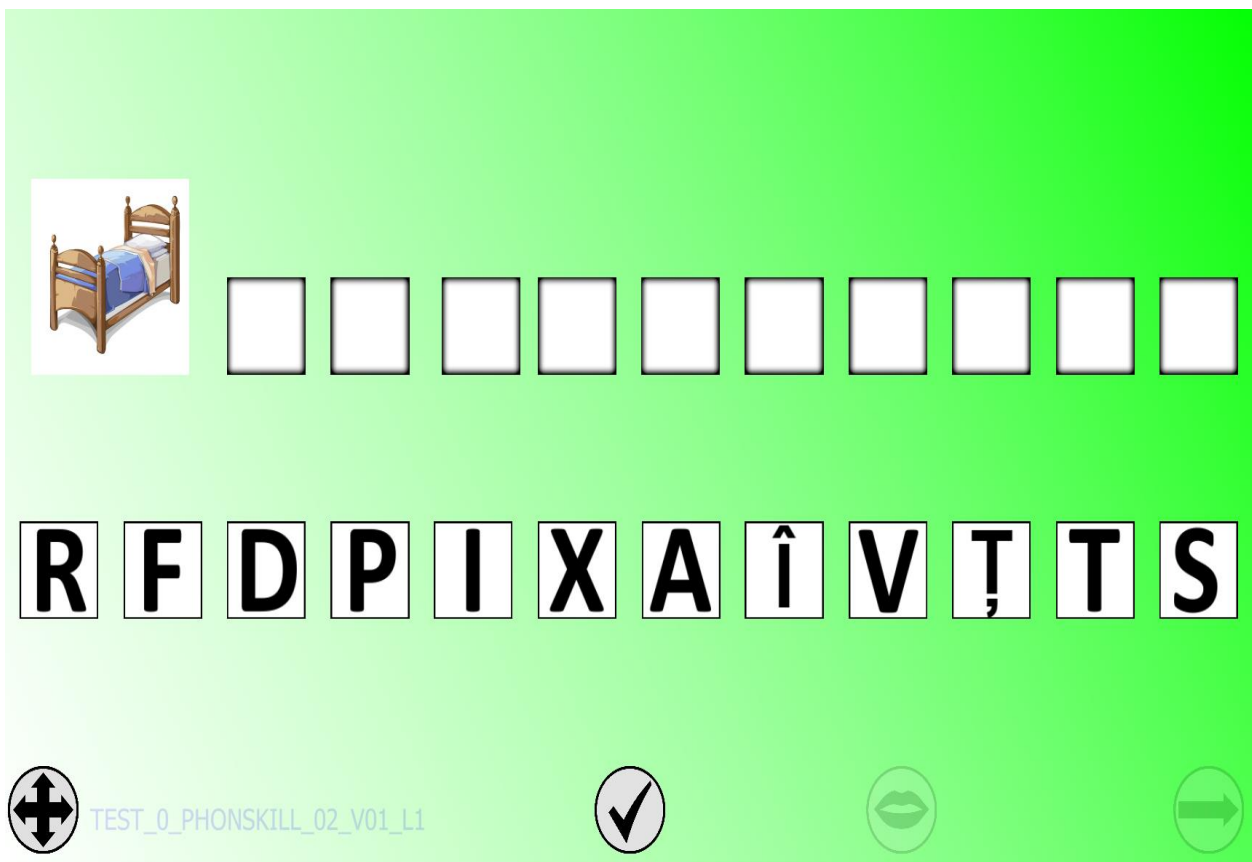


Figure 4. DAP application –Exercise

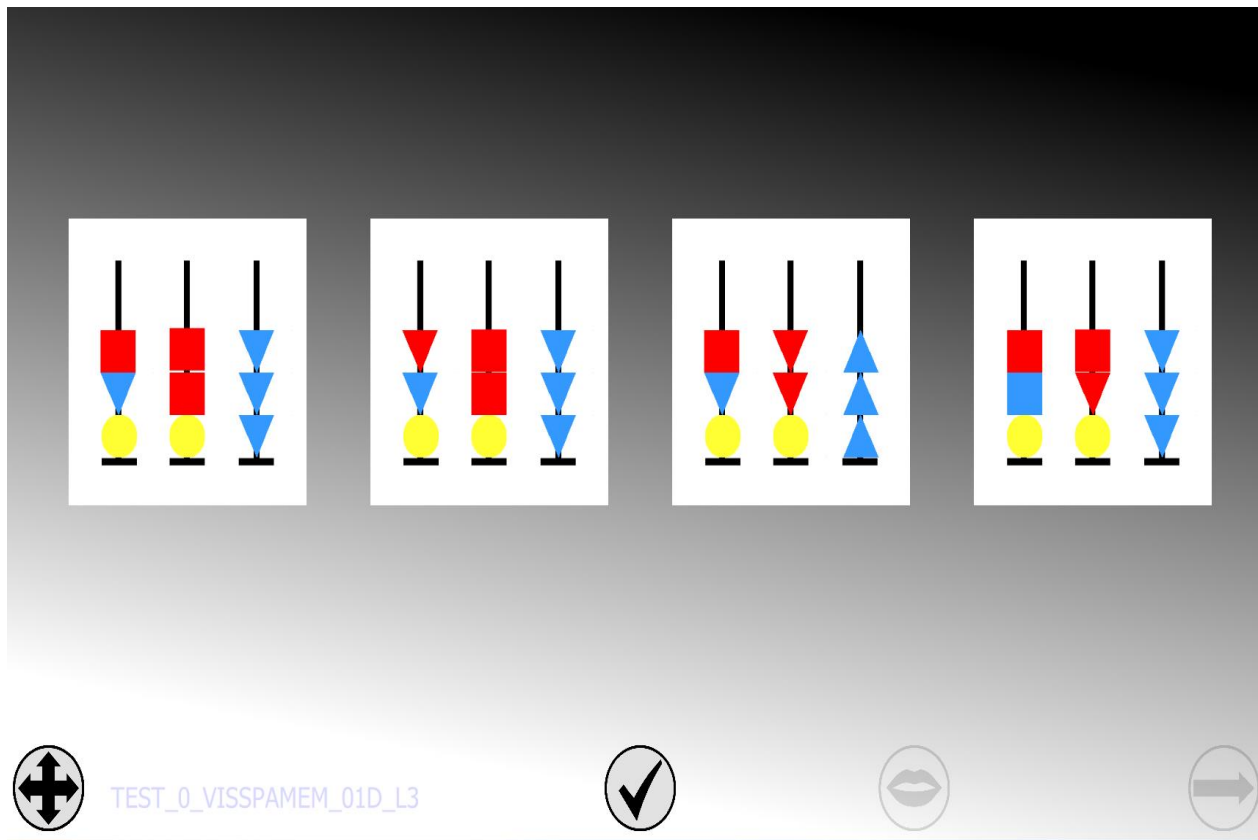


Figure 5. DAP application –Exercise

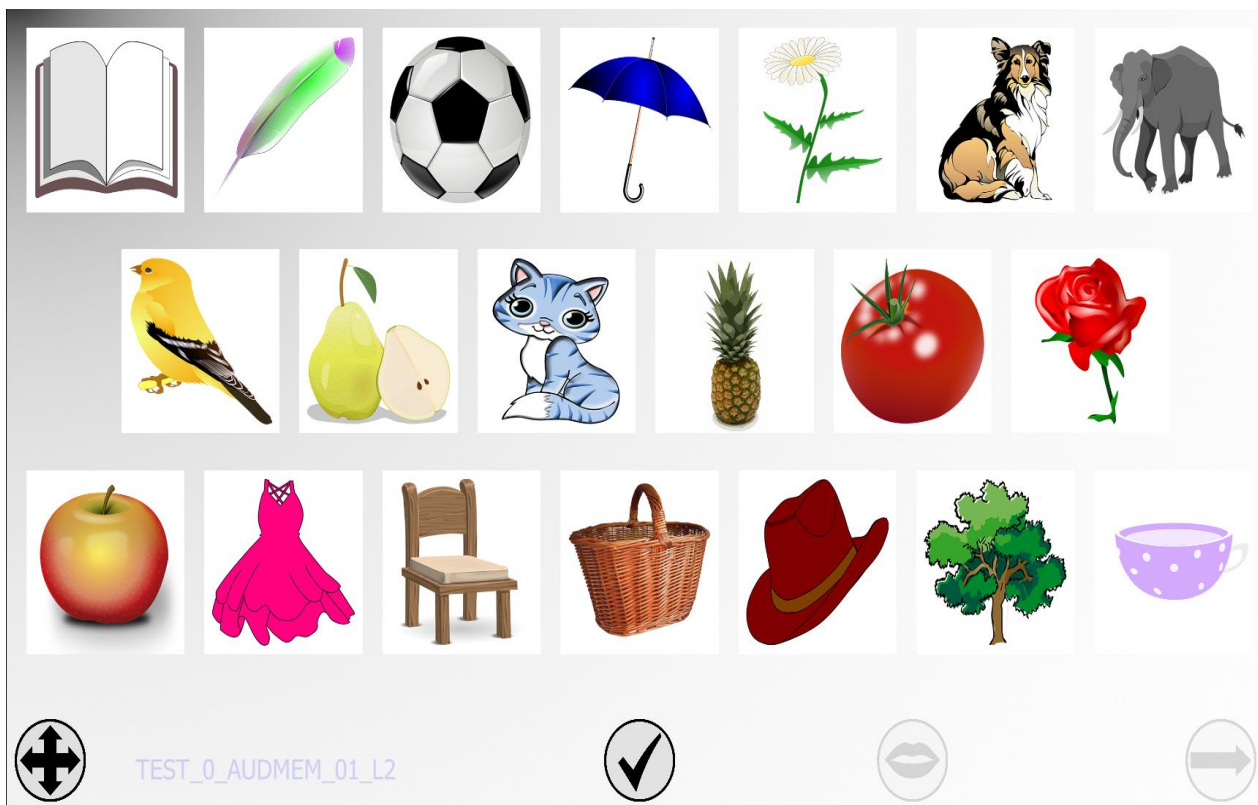


Figure 6. DAP application -Exercise

DAPCAP Client Administration Program

Elevi | Sesiuni de testare | Rezumate | Evaluare | Ajutor | Despre

Nume:

Sex:

Data naşterii: Select a date

Născut/ă în:

Nivel de şcolarizare:

Strada:

Cod poştal: Oraş:

Ţara:

Persoană de contact:

Telefon:

Email:

Prima limbă:

Alte limbi:

Deficienţe de vedere:

Deficienţe de auz:

Deficienţe de vorbire:

Deficienţe motrice:

Comentarii:

Actualizaţi elevul

Adăugaţi un nou elev

Creaţi o nouă sesiune

teacher: PANTEA TAMARA

puy01 (closed)

Figure 7. DAP application-Table with child's data

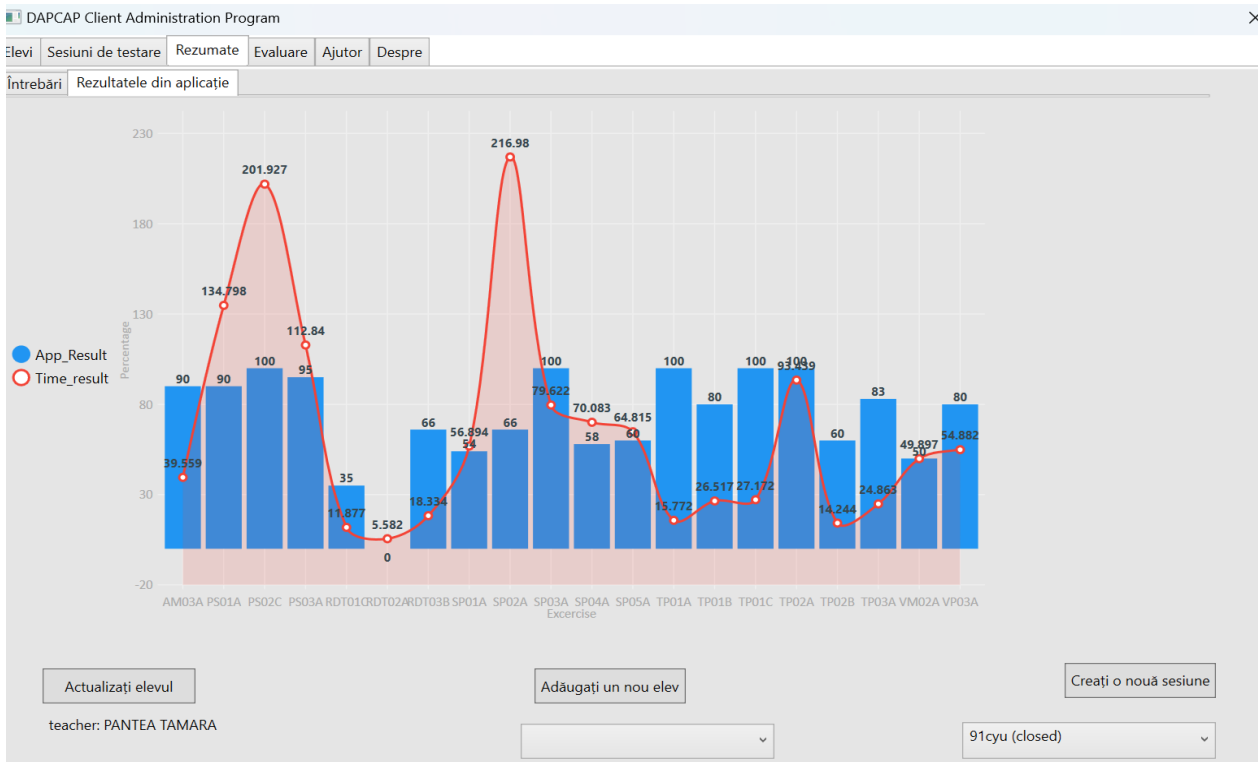


Figure 8. DAP app- Graph following the evaluation

All the results produced by the project team are available for those who want to use the application or view the materials produced.

By going to [https://hidrive.ionos.com/share/e.0r.vna2z#\\$/](https://hidrive.ionos.com/share/e.0r.vna2z#$/) you will have access to these materials.

This project and the good collaboration between the project partners led to the development of a unique application in our country, the DAP Application, which helps detect children at risk of dyslexia. By addressing the exercises proposed in the seven chapters and directions of development of the application, after filling in some preliminary data, but also after observing the resulting graph, we can draw a conclusion about dyslexia problems.

Dyslexia does not depend on the level of intelligence - it is only the impairment of partially specific reading/reading skills. The dyslexic child can have a normal school and social integration, if supported in overcoming limits and achieving academic and professional performance). Dyslexia is frequently associated with other learning disorders (dysgraphia, dyscalculia) or neurodevelopmental disorders (ADHD, language and communication disorders). Symptoms of a predisposition to dyslexia can be identified as early as pre-school, in speech, motor skills, spatial and temporal orientation skills, attention span, visual and auditory perception, memory, etc. Parents, teachers and educators are the first people to notice problems with children's play and learning activities.

Learning disabilities (including dyslexia) are not “cured”, but their effects are ameliorated/remediated, and ignoring them has negative consequences for emotional development, school and social integration, and, implicitly, for personality development.

Our task as teachers is to provide the necessary support to dyslexic students. It is important to identify the individual's dyslexia problems properly and in a timely manner, and through exercise tailored to the child's needs, to improve and enhance the child's ability to read and write.

References:

- Anca M., (2002), *Logopedie*, Editura Presa Universitară Clujeană, Cluj-Napoca.
- Burlea G., (2007), *Tulburările limbajului scris-citit*, Editura Polirom, Iași, Științele Educației.
- Chirila, M., Mendelovici, A., Milici, R.C., (2016), *Dislexia – ghidul profesorului și al părinților*, Editura Spiru Haret, Iași.

Webography

<https://www.desprecopii.com/info-id-1805-nm-Dislexia-copilului.html>

<https://www.parinti.com/Dislexia-articol-350.html>

<https://www.dislexie.ro/specialitati/terapia-dislexiei-disgrafiei-discalculiei>

